Korean Journal of English Language and Linguistics, **Vol 26, July 2026, pp. 894-913**
DOI: 10.15738/kjell.26..202607.894

KOREAN JOURNAL OF ENGLISH LANGUAGE AND LINGUISTICS

ISSN: 1598-1398 / e-ISSN 2586-7474

http://journal.kasell.or.kr

Comparative Roles of SNS-Mediated and Face-to-Face Intercultural Contact for Korean EFL Learners in an EMI Context

Jeongyeon Kim (Ulsan National Institute of Science & Technology)

Received: May 17, 2026
Revised: June 13, 2026
Accepted: June 14, 2026

Kim, Jeongyeon
Professor, School of Liberal Arts
Ulsan National Institute of Science and Technology
50 UNIST-gil
Ulsan, South Korea
Tel: +82-52-217-2013
Email: jkim@unist.ac.kr

ABSTRACT

Kim, Jeongyeon. 2026. Comparative roles of SNS-mediated and face-to-face intercultural contact for Korean EFL learners in an EMI context. *Korean Journal of English Language and Linguistics* 26, 894-913.

Despite the importance of intercultural contact for developing intercultural competence and language learning motivation, few studies have directly compared social networking service (SNS)-mediated and face-to-face (FtF) intercultural contact in English-medium instruction (EMI) contexts. This mixed-methods study examined how SNS-mediated, FtF, and no-contact conditions influenced Korean EFL learners' intercultural competence and English learning motivation in an EMI intercultural communication course. Data were collected over a 16-week semester from pre- and post-semester questionnaires and reflective essays of 181 undergraduates assigned to one of the three conditions. Quantitative findings showed that both SNS-mediated and FtF contact produced higher posttest intercultural communicative competence and intercultural sensitivity than no-contact instruction. SNS contact was linked to gains in intercultural knowledge, skills, awareness, and confidence, with weaker short-term motivational effects. In contrast, FtF contact was associated with stronger gains in intrinsic and extrinsic motivation and higher intercultural respect. Qualitative findings further indicated that the two modes fostered understandings of English as a lingua franca in distinct ways, with SNS contact supporting reflective comparison and FtF contact promoting engagement. These findings highlight the value of integrating both SNS-mediated and FtF intercultural contact into EMI curricula to support complementary dimensions of intercultural and motivational development.

KEYWORDS

intercultural contact, social networking service, intercultural competence, motivation, English-medium instruction

1. Introduction

As English-medium instruction (EMI) expands in higher education institutions in English as a foreign language (EFL) context, students are increasingly expected to engage in academic and social interactions with peers from diverse linguistic and cultural backgrounds. Intercultural contact is a central condition for successful second language (L2) learning as it influences learners' motivation, confidence, attitudes, and willingness to communicate (Byram 1997, Csizér and Kormos 2009, Dörnyei and Csizér 2005). Through these encounters, learners experience alternative ways of thinking, acting, and communicating, which can lead them to reflect on their own linguistic and cultural positioning and develop intercultural communicative competence (Byram 1997, Norton 2013). Intercultural contact thus forms an important part of learning experiences in internationalized higher education and highlights the multilingual and multicultural dimensions of EMI (Fang et al. 2024). In many EFL contexts, however, students have limited access to authentic intercultural contact, especially when opportunities for meaningful interaction are not systematically embedded in the curriculum. To address this limitation, higher education institutions have traditionally offered international exchange programs, including study abroad. Yet these opportunities often depend on physical mobility from EFL contexts to English-speaking academic settings and are limited in both access and duration. More importantly, participation alone does not guarantee intercultural learning, which requires active engagement in interaction and reflection on intercultural experiences (Hammer et al. 2003, Hernández 2010, Kormos et al. 2014).

These limitations are pronounced in science and engineering disciplines in EFL higher education contexts, where internationalization is often closely tied to EMI and global academic mobility. For many students in these disciplines, English is closely associated with academic achievement, access to disciplinary knowledge, research participation, and future career opportunities. As a result, English may be viewed primarily as an instrumental resource rather than as a medium for intercultural socialization (Kim 2020, 2025). This creates a distinctive motivational context in which learners may recognize the practical value of English but have relatively limited opportunities or incentives to use it for meaningful intercultural engagement. Curriculum-embedded intercultural contact is thus important because it can connect students' instrumental orientations toward English with more interactive, reflective, and socially situated uses of the language (Kim 2025).

To promote curriculum-embedded intercultural contact, educators have increasingly examined technology-mediated interaction as a way to supplement or substitute for face-to-face (FtF) contact within domestic curricula. Social networking services (SNSs), such as Facebook and X, have emerged as prominent platforms for intercultural exchange (Hutchby 2014, Reinhardt 2019). SNSs can support new forms of social and cultural participation by allowing learners to create personal profiles, share multimodal content, and engage in sustained asynchronous interaction (Abella-García et al. 2019, Baker and Sangiamchit 2019). Through SNS-mediated intercultural interaction, L2 learners have also been found to develop greater confidence and motivation to learn (Abella-García et al. 2019, Erhel et al. 2022).

Although SNS-mediated intercultural contact has been found to support language education, little research has directly compared SNS-mediated and FtF contact within EMI instructional settings. In particular, limited attention has been paid to how these modes of contact relate to specific dimensions of intercultural competence and L2 learning motivation. The present study examines how these contact opportunities differentially relate to Korean EFL learners' intercultural competence and motivational orientations in an EMI context. Specifically, it investigates how contact versus non-contact, as well as different modes of contact, are associated with changes in intercultural competence, motivation, and learners' perceptions of intercultural interaction. In doing so, this study aims to inform the design of intercultural curricula in EMI settings and contribute to sustainable internationalization in higher education.

2. Review of Literature

2.1 Intercultural Competence and EFL Learning

Intercultural competence (IC) encompasses the cognitive, affective, and behavioral capacities that allow individuals to interact effectively and appropriately across cultural boundaries. In EFL education, previous research has discussed IC through two closely related dimensions: intercultural communicative competence (ICC) and intercultural sensitivity. ICC, proposed by Byram (1997), refers to learners' ability to engage in meaningful intercultural interaction through a foreign language. By integrating linguistic proficiency with curiosity, openness, and empathy, ICC enables learners to negotiate multiple identities, avoid stereotyping, and foster mutual understanding (Byram 2021). It develops through intercultural experiences and critical reflection on those encounters (Baker and Fang 2021, Hammer et al. 2003, Jackson 2018). This reflective process also supports the development of intercultural citizenship and intercultural identities (Byram 2021, Kim 2020).

Intercultural sensitivity (IS), an important affective dimension of IC, refers to the capacity to respect, appreciate, and respond positively to cultural differences (Hammer et al. 2003, Jackson 2018). Previous studies have linked IS to stronger L2 motivation and persistence (Alaei and Aghblagh 2020, Han and McDonough 2021, Kim 2020, Piechurska-Kuciel and Rusieshvili 2021). This relationship is particularly important, as motivation shapes learners' willingness to engage in intercultural experiences, while such engagement may further support their intercultural development. However, intercultural exposure alone does not necessarily strengthen motivation, ICC, or IS. Positive outcomes depend on guided pedagogical design, opportunities for reflection, and institutional support (Baker and Fang 2021). In EMI contexts, intercultural components should therefore be systematically integrated into curricula to support both L2 motivation and intercultural competence (Kim 2025).

2.2 L2 Motivation in Internationalized Higher Education

Motivation refers to the psychological and social processes that initiate and sustain goal-oriented learning behaviors and has long been considered a central construct in L2 learning (Dörnyei and Ottó 1998). Within educational psychology, self-determination theory has been influential in conceptualizing motivation along a continuum from extrinsic to intrinsic motivation (Deci and Ryan 2002). Extrinsic motivation derives from external pressures or rewards, such as grades, employment prospects, or social approval, whereas intrinsic motivation arises from internal satisfaction, curiosity, or the inherent pleasure of learning itself (Ryan and Deci 2000). Intrinsic motivation has been linked to more enduring and self-regulated L2 learning behaviors, particularly when learners experience autonomy, efficacy, and belonging. These motivational dimensions are closely intertwined with L2 learners' identities and communicative goals, influencing not only why they learn English but also how willing they are to use it in meaningful interaction with linguistically and culturally diverse others (Ushioda 2017).

L2 motivation theory has recently evolved toward a more dynamic perspective that emphasizes learners' participation in multilingual, intercultural, and digitally mediated contexts. This perspective is particularly relevant to internationalized higher education, where English increasingly functions not only as a target language but also as a medium for academic participation and intercultural communication. Conceptualizing global competence as the ability to understand and act on issues of global significance through intercultural communication, Semaan and Yamazaki (2015) showed that this competence is closely linked to L2 motivation. Learners motivated by intercultural and global purposes sustained engagement more effectively because their goals extended beyond classroom achievement to broader social contexts (Semaan and Yamazaki 2015). Likewise, interaction with

speakers from different linguistic and cultural backgrounds has been associated with more positive attitudes, greater confidence, and stronger persistence in language learning (Aubrey and Nowlan 2013, Hernández 2010, Kormos et al. 2014). These findings suggest that meaningful intercultural contact can strengthen motivation and encourage continued engagement with diverse speakers.

In EMI settings, the reciprocal relationship between IC and motivation is particularly important, as learners are expected to use English not only for disciplinary learning but also for intercultural interaction. In these settings, English often functions as a shared communicative resource among multilingual speakers rather than simply as a target language to be mastered. This view is central to English as a lingua franca (ELF), which emphasizes meaning negotiation among speakers with diverse linguistic and cultural repertoires. From an ELF perspective, IC development is supported as learners negotiate meaning, accommodate linguistic diversity, and attend to cultural positioning during interaction. ELF may also enhance motivation by reducing anxiety about native-like accuracy and helping learners view English as a practical medium for meaningful intercultural communication (Seidlhofer 2011). As Dörnyei and Csizér (2005, p. 328) emphasize, "intercultural contact is both a means and an end in L2 studies."

2.3 Online versus Face-to-Face Interaction in L2 Development

Given the relationship between L2 motivation and intercultural contact, prior research has examined how different interactional modes, including FtF interaction and online communication, relate to learners' engagement, communication, and L2 development. Meta-analytic research on technology-supported L2 instruction suggests that digitally mediated learning environments can produce outcomes comparable to, and sometimes stronger than, those associated with traditional classroom environments (e.g. Grgurović et al. 2013). A growing body of research comparing online and FtF learning environments also indicates that both modes can support L2 acquisition (e.g. Grgurović et al. 2013, Murphy and Sedivy 2024, Ribeiro and Eslami 2025). For example, Murphy and Sedivy (2024) found that learners studying less commonly taught languages achieved similar speaking proficiency gains in both online and FtF intensive programs.

Other studies have shown that the interactional experiences offered by FtF and online modes differ substantially. FtF settings provide direct interpersonal presence, multimodal cues, and a strong sense of social presence, which can facilitate rapport-building, co-construction of meaning, and spontaneous discourse (Kim 2014, Timpe-Laughlin et al. 2024). FtF interaction may also promote collaborative problem-solving, pragmatic expression, fluency, and communicative confidence. By contrast, online exchanges, whether synchronous or asynchronous, can create opportunities for reflection, noticing, and form-focused engagement, helping learners attend more consciously to linguistic accuracy (Yuksel and Inan 2014, Zeng 2017). Virtual collaboration may further strengthen learners' L2 motivation and international posture by enhancing their sense of global identity and willingness to communicate (Skidmore 2026).

SNSs have emerged as important platforms for facilitating intercultural contact and L2 practice beyond formal classroom settings. Through multimodal interaction on platforms such as Facebook, X, Instagram, and WhatsApp, learners can negotiate cultural meanings in (semi)-authentic digital environments and develop intercultural awareness (Adams et al. 2018, Ryan et al. 2011). SNS-based interaction has also been found to promote engagement and motivation and to increase confidence, willingness to communicate, and learner autonomy (Bailey et al. 2021, Hsieh et al. 2022, Kim 2025, Lai and Tai 2021, Xin 2024). A recent study of SNS-mediated intercultural contact among Korean EFL learners found differential gains in IC and motivation, while also identifying significant links between the two constructs (Kim 2025). However, the study was limited to a single SNS platform

and fixed interlocutor groups, and questions remain about how learners engage in SNS-mediated contact when they can exercise greater choice over platforms and interlocutors.

In sum, previous studies show growing interest in social media as a means for language learning, but much of this literature has focused on technology use, learner perceptions, or platform acceptance, with less attention to pedagogically grounded models of intercultural and motivational development (Reinhardt 2019). Studies conducted in settings where learners have little choice over interactional mode or interlocutors also raise questions about learner autonomy (Kim 2025). Furthermore, limited attention has been paid to EMI environments, where English functions not only as a target language but also as a lingua franca for intercultural communication (Baker and Sangiamchit 2019). To address these gaps, the present study investigates how SNS-mediated and FtF intercultural interactions differentially influence Korean EFL learners' L2 motivation, ICC, and IS within an EMI setting. The following research questions guided the present study:

1. What changes occur in Korean EFL learners' IC, including ICC knowledge, attitudes, skills, and awareness, and IS respect, confidence, and enjoyment, across SNS-mediated, FtF, and no-contact conditions in an EMI environment?
2. To what extent do Korean EFL learners' motivational orientations, namely intrinsic and extrinsic motivation, change across these conditions?
3. How are IC components related to motivational orientations after interaction in the two intercultural contact conditions, SNS-mediated and FtF?
4. What reflections do students report on their interactions in the SNS-mediated and FtF conditions?

3. Methodology

3.1 Participants and Context

A total of 181 Korean undergraduate students at a research-oriented university in a major metropolitan city in South Korea participated in the study. The university is internationally recognized for its strong science and engineering programs and, as part of its commitment to the internationalization of research and education, had implemented EMI, with 98% of undergraduate courses taught in English at the time of the study. Participants were assigned to three conditions according to the type of intercultural activity incorporated into three sections of an intercultural communication course: SNS-mediated contact (n = 59), FtF contact (n = 53), and No Contact (n = 69). As shown in Table 1, most participants were male (71-78%) and engineering majors (51-92%), with smaller numbers of business majors and students with undeclared majors (freshmen). They were distributed across all four academic years, although first- and fourth-year students were less represented. English proficiency, based on mock TOEFL test scores obtained from the university's academic management system, ranged from level 1, beginner-high, to level 4, advanced-low, with most students placed at intermediate-low to high levels, levels 2 and 3. Only 7-10% of participants reported prior residence abroad, ranging from three months to one year, and none had lived abroad for more than one year.

A chi-square test of independence showed no statistically significant differences among the three groups (p > .05), suggesting that the groups were broadly similar at the beginning of the study. Although the proportion of engineering majors appeared higher in the FtF group than in the SNS group, this difference should be understood in relation to the institutional context, where engineering students constitute the majority of the undergraduate population and business majors represent a much smaller proportion. In addition, each incoming cohort of business

majors accounted for less than 10% of freshmen. Thus, the composition of each dataset by interactional condition was considered balanced for the purposes of analysis.

Table 1. Demographic Information of the Survey Participants (*N* = 181)

Characteristics		SNS	FTF	No Contact
		N (%)	*N*(%)	*N*(%)
Gender	male	42 (71.19)	40 (75.47)	54 (78.26)
	female	17 (28.81)	13 (24.53)	15 (21.74)
Major	undeclared	15 (25.42)	2 (3.77)	9 (13.04)
	Engineering	30 (50.85)	49 (92.45)	51 (73.91)
	business	14 (23.73)	2 (3.77)	9 (13.04)
Class/year	1	16 (27.12)	4 (7.55)	12 (17.39)
	2	13 (22.03)	29 (54.72)	23 (33.33)
	3	23 (38.98)	14 (26.42)	19 (27.54)
	4	7 (11.86)	6 (11.32)	15 (21.74)
English level	1	9 (15.25)	16 (30.19)	23 (33.33)
	2	25 (42.37)	23 (43.4)	24 (34.78)
	3	16 (27.12)	10 (18.87)	12 (17.39)
	4	9 (15.25)	4 (7.55)	10 (14.49)
Residence in foreign country	yes	6 (10.17)	4 (7.55)	7 (10.14)
	no	53 (89.83)	49 (92.45)	62 (89.86)
Total		59	53	69

3.2 Procedure

Participants were recruited from five sections of an undergraduate course on intercultural communication offered over two semesters. One section per semester was designated as the no-contact control group, while the remaining sections were assigned to intercultural contact through either SNS-mediated or FtF interaction. All groups were taught by the same instructor and teaching assistant. The curricula across the three groups were identical in content, learning objectives, and assessment components, focusing on developing students' ability to perform communicative tasks effectively while managing cultural and contextual constraints. Intercultural contact and classroom discussion topics were aligned with course themes, including community membership, cultural representations in idiomatic expressions, cultural stereotypes, and politeness norms (Table 2).

Task completion in both contact conditions was monitored through students' submitted interaction records, reflective notes, and Week 15 presentations. FtF students reported the date, setting, duration, and topic of each meeting, while SNS students submitted screenshots of their initial posts and replies for each theme. Despite broad task equivalence across the two contact conditions, they differed in how interaction took place. SNS contact was primarily asynchronous and text-based or multimodal, whereas FtF contact consisted of synchronous, in-person interaction on campus or in nearby local settings. The comparison thus focused on two mode-embedded intercultural contact conditions rather than a fully isolated test of communication mode alone.

At the beginning of the semester, students in the intercultural contact sections were informed of the interactional mode assigned to their section: either FtF or SNS-mediated interaction. Students in both contact groups identified and contacted an intercultural partner from a foreign country, either from a pool provided by the instructor or through their own networks. Thirteen FtF participants (24.5%) and eight SNS participants (13.6%) used the instructor-provided pool, while the remaining students contacted partners through their own networks. Instructor guidance consisted of five required thematic prompts in both groups. FtF participants interacted with partners from

diverse backgrounds, including international or exchange students, visiting researchers, and foreign nationals residing in Korea for business or travel. These partners came from European countries (n = 21), Asian countries (n = 12), North America (n = 11), and India (n = 9). FtF participants were required to meet their partners in person at least once for each theme for a minimum of 30 minutes, guided by the biweekly course themes shown in Table 2. The average meeting time was 47 minutes, ranging from 30 to 70 minutes. Participants completed an average of 1.1 meetings per theme. Interactions took place outside the classroom in settings such as campus cafés or nearby restaurants. These interactions often extended to related topics, which were later used for in-class discussions and presentations.

The SNS group engaged in intercultural exchange with partners from Europe (n = 23), North America (n = 18), Asia (n = 15), and Turkey (n = 3), using their preferred SNS platforms, most commonly Instagram or Facebook. The exchange was structured around asynchronous posts and replies related to the course themes. Participants were required to make at least one initial post for each theme and produced an average of 4.5 replies per theme, ranging from 2 to 7. They were also encouraged to draw on additional resources where relevant, and most incorporated multimodal materials such as images and videos into their posts and replies. Since no further instructions were given regarding the length or format of contributions, many students extended their follow-up interaction through more immediate channels, including direct messaging, Discord, or other platforms. In both intercultural contact groups, languages other than English, including Korean, could be used to support communication and illustrate pragmatic features of English or the students' other languages. The no-contact group followed the same syllabus, materials, and assessments; however, instead of completing intercultural exchange activities, students participated in class discussions and written assignments.

Table 2. Experimental Design of Intercultural Activities across Three Groups

Group	Activity type and topic / Week	Assignment & presentation / Week	Final exam
SNS	Conducted entirely via SNS posts and peer replies 1. Self-introduction / W2 2. Membership with community / W4-5 3. Cultural encodings / W9-10 4. Stereotypes and politeness/ W11-12	Intercultural exchanges and presentation on the SNS interaction / W15	In-class exam / W16
FtF	Conducted through interactions out of classrooms, either on campus or in the vicinity 1. Self-introduction / W2 2. Membership within community / W4-5 3. Cultural encodings / W9-10 4. Stereotypes and politeness / W11-12	Intercultural exchanges and presentation on FtF interaction / W15	In-class exam / W16
No Contact	No intercultural exchange activities; classroom learning and LMS-based reflection only 1. Classroom discussion on student membership with community / W4 2. Online discussion on cultural encodings / W5 3. Classroom discussion on cultural stereotypes and politeness / W12	1. Assignment on cultural encodings in idiomatic expression / W6 2. Presentation on stereotypes and politeness / W15	In-class exam / W16

Note. FtF = Face-to-Face, SNS = Social Network Service, No Contact = control group without intercultural exchange

3.3 Instrument and Data Analysis

This study employed an explanatory sequential mixed-methods design, in which quantitative data were collected and analyzed first, followed by qualitative analysis to explain the quantitative findings in greater depth (Creswell 2014). For the quantitative component addressing RQs 1-3, all three groups completed a questionnaire in Week 2,

as a pretest, and Week 16, as a posttest. The questionnaire was adapted from Kim (2025), whose instrument revised and integrated multiple validated measures of L2 motivational orientations (Dörnyei and Csizér 2005), ICC (Byram 1997, Peng and Wu 2016), and IS (Chen and Starosta 2000). The final questionnaire contained 36 items across four sections: demographic information (4 items), ICC components of knowledge, attitudes, skills, and awareness (14 items), IS components of respect, confidence, and enjoyment (11 items), and intrinsic/extrinsic motivation (7 items). All items were measured on a five-point Likert scale, ranging from 1, strongly disagree, to 5, strongly agree.

An exploratory factor analysis of the pretest data yielded nine factors, accounting for 68.32% of the total variance. For the full sample, Cronbach's alpha coefficients ranged from .655 for IS-Respect to .929 for IS-Enjoyment, indicating acceptable to high internal consistency. To address RQs 1 and 2, the main group comparisons were evaluated through MANCOVA/ANCOVA, with pretest scores entered as covariates to control for initial differences. Scheffé post-hoc tests were conducted where appropriate. For RQ 3, Pearson correlation coefficients were calculated to examine relationships between motivational and intercultural variables at the posttest. The within-group *t*-tests for RQs 1 and 2 and the correlation analyses for RQ 3 were used as follow-up analyses to clarify patterns of change and associations within each condition. These results were interpreted as supplementary follow-up evidence in relation to the overall pattern of findings.

For the qualitative component addressing RQ 4, reflective essays were collected from students in the SNS and FtF groups at the end of the semester. Students were invited to write 500–600 words about their intercultural interactions, including both learning experiences and emotional responses. A total of 77 essays, 40 from the SNS group and 37 from the FtF group, were analyzed using thematic analysis guided by Creswell's (2014) coding procedures. Two specialists in qualitative research and applied linguistics first read the essays repeatedly to gain an overall understanding of the data. They then independently assigned initial codes to text segments representing meaningful ideas, experiences, or perceptions related to intercultural interaction. The two coders compared their coding decisions across the dataset, discussed discrepancies, and revised the coding scheme until consensus was reached. Through iterative comparison, similar codes were grouped into broader categories, which were then refined into themes capturing recurring patterns across the dataset. The SNS and FtF groups were then compared to identify shared and distinct patterns in students' experiences, and representative excerpts were selected to support interpretation of the themes. In this way, the qualitative analysis helped explain the quantitative findings.

4. Findings

A MANCOVA and a series of follow-up ANCOVAs were conducted to examine group differences in posttest IC, including ICC and IS, and motivation, while controlling for the corresponding pretest scores. The overall multivariate effect of group was significant, Wilks' Lambda = .69, $F(18, 322) = 3.57$, $p < .001$, partial $\eta^2 = .17$, indicating a large multivariate effect of group on the intercultural and motivational components. These results suggest that the three intercultural conditions were associated with statistically significant differences in learners' IC and motivation.

4.1 Intercultural Contact and the Development of IC

After adjusting for pretest scores, significant group differences were found for overall ICC ($p < .001$) and overall IS ($p < .001$) (Table 3). Except for IS-Respect, the pretest covariates were not statistically significant, suggesting

that most observed posttest differences were mainly associated with group membership rather than initial differences among the groups. Follow-up ANCOVAs showed significant group effects for most IC constructs, except ICC-Attitudes (p = .265). Scheffé post-hoc comparisons indicated that both contact groups outperformed the no-contact group (NoC) on most ICC dimensions, following the pattern SNS ≈ FtF > NoC. A similar result was found for two IS subscales, IS-Confidence (p = .001) and IS-Enjoyment (p = .004). Both SNS-mediated and FtF contact were associated with higher confidence and enjoyment in intercultural interaction. However, IS-Respect differed from the other IS subscales, as shown by a significant difference between FtF and SNS (p = .001). The difference between SNS and No Contact for this construct was not significant. Direct FtF intercultural interaction thus appeared to play a distinctive role in fostering respect for cultural differences.

Table 3. Effects of Intercultural Contact Mode on ICC and IS Components (ANCOVA)

	Source	*df*	*MS*	*F*	*Prob>F*	Post hoc (Scheffé)
	group	2	3.157	10.03	0.000	
ICC-Overall	ICC-pre	1	0.027	0.09	0.768	SNS ≈ FtF > NoC
	Residual	177	0.315			
	group	2	3.229	9.71	0.000	
IS-Overall	IS-pre	1	0.500	1.5	0.222	SNS ≈ FtF > NoC
	Residual	177	0.332			
	group	2	5.132	8.97	0.000	
ICC-Knowledge	ICC/Knlg-pre	1	0.241	0.42	0.517	SNS ≈ FtF > NoC
	Residual	177	0.572			
	group	2	0.512	1.34	0.265	
ICC-Attitudes	ICC-Att_pre	1	0.813	2.13	0.147	No difference
	Residual	177	0.382			
	group	2	5.344	14.61	0.000	
ICC-Skills	ICC-Sk_pre	1	0.000	0.00	0.988	SNS ≈ FtF > NoC
	Residual	177	0.366			
	group	2	3.143	6.82	0.001	
ICC-Awareness	ICC-Awr_pre	1	0.628	1.36	0.245	SNS ≈ FtF > NoC
	Residual	177	0.461			
	group	2	1.467	7.11	0.001	
IS-Respect	IS-Res_pre	1	1.180	5.72	0.018	FtF > SNS ≈ NoC
	Residual	177	0.206			
	group	2	6.545	6.94	0.001	
IS-Confidence	IS-Conf_pre	1	1.145	1.21	0.272	SNS ≈ FtF > NoC
	Residual	177	0.943			
	group	2	3.986	5.59	0.004	
IS-Enjoyment	IS-Enj_pre	1	2.381	3.34	0.069	SNS ≈ FtF > NoC
	Residual	177	0.713			

Note. ICC = intercultural communicative competence; IS = intercultural sensitivity; NoC = no contact.

Follow-up paired-samples t-tests were conducted to supplement the main ANCOVA findings and clarify within-group changes in ICC and IS. As shown in Table 4, the FtF group demonstrated the most consistent and significant gains across constructs. By contrast, the SNS group showed significant gains in ICC knowledge, skills, and awareness, as well as in IS-Confidence (p < .001) and IS-Enjoyment (p = .004), but not in ICC-Attitudes (p = .226) or IS-Respect (p = .830). Although some gains in the no-contact group were statistically significant, improvements in IC constructs were relatively modest. This suggests that instruction without intercultural contact had a limited impact in promoting IC development.

Table 4. Within-Group Difference Shown in the *t*-test (IC)

	Group	pre/post	*Mean*	*SD*	*t*	*df*	*Sig.*
ICC-Overall	SNS	pre	3.604	0.483	-5.547	58	0.000
		post	4.095	0.501			
	FtF	pre	3.392	0.505	-7.760	52	0.000
		post	4.248	0.585			
	No Contact	pre	3.496	0.546	-3.319	68	0.002
		post	3.804	0.586			
IS-Overall	SNS	pre	3.567	0.589	-3.682	58	0.001
		post	3.904	0.502			
	FtF	pre	3.386	0.566	-5.947	52	0.000
		post	4.017	0.595			
	No Contact	pre	3.340	0.575	-2.261	68	0.027
		post	3.568	0.622			
ICC-Knowledge	SNS	pre	3.038	0.775	-6.038	58	0.000
		post	3.835	0.620			
	FtF	pre	2.788	0.757	-7.890	52	0.000
		post	3.929	0.791			
	No Contact	pre	2.971	0.756	-3.321	68	0.001
		post	3.399	0.828			
ICC-Attitudes	SNS	pre	4.186	0.601	-1.224	58	0.226
		post	4.311	0.609			
	FtF	pre	4.057	0.663	-2.665	52	0.010
		post	4.390	0.653			
	No Contact	pre	3.990	0.597	-2.107	68	0.044
		post	4.198	0.603			
ICC-Skills	SNS	pre	3.631	0.511	-4.863	58	0.000
		post	4.097	0.515			
	FtF	pre	3.283	0.695	-7.871	52	0.000
		post	4.325	0.633			
	No Contact	pre	3.449	0.641	-2.725	68	0.008
		post	3.739	0.648			
ICC-Awareness	SNS	pre	3.559	0.602	-5.204	58	0.000
		post	4.136	0.581			
	FtF	pre	3.440	0.663	-6.452	52	0.000
		post	4.346	0.707			
	No Contact	pre	3.575	0.705	-2.368	68	0.021
		post	3.879	0.734			
IS-Respect	SNS	pre	4.113	0.494	-0.216	58	0.830
		post	4.136	0.507			
	FtF	pre	3.943	0.605	-4.402	52	0.000
		post	4.415	0.423			
	No Contact	pre	4.010	0.485	-1.154	68	0.253
		post	4.106	0.445			
IS-Confidence	SNS	pre	2.932	0.807	-4.001	58	0.000
		post	3.554	0.915			
	FtF	pre	2.824	0.891	-5.377	52	0.000
		post	3.748	1.042			
	No Contact	pre	2.681	0.908	-2.662	68	0.010
		post	3.097	0.964			
IS-Enjoyment	SNS	pre	3.655	0.860	-3.000	58	0.004
		post	4.023	0.719			
	FtF	pre	3.390	0.859	-3.115	52	0.003
		post	3.887	0.852			
	No Contact	pre	3.329	0.837	-1.185	68	0.240
		post	3.502	0.946			

4.2 Changes in Extrinsic and Intrinsic Motivation

ANCOVA results (Table 5) showed significant group effects for both extrinsic motivation, $F(2, 177) = 6.01$, $p = .003$, and intrinsic motivation, $F(2, 177) = 6.00$, $p = .003$. The corresponding pretest scores were not significant covariates, indicating that the posttest differences were not primarily attributable to initial motivation levels. Scheffé post-hoc tests showed that the FtF group had higher extrinsic motivation than both the SNS and no-contact groups (FtF > SNS ≈ NoC). For intrinsic motivation, the SNS and FtF groups did not differ significantly, but both scored higher than the no-contact group (SNS ≈ FtF > NoC).

Table 5. Effects of Intercultural Contact Mode on Motivation (ANCOVA)

	Source	*df*	*MS*	*F*	Prob>*F*	Post hoc (Scheffé)
EM	group	2	1.108	6.01	0.003	FtF > SNS ≈ NoC
	EM_pre	1	0.311	1.69	0.196	
	Residual	177	0.184			
IM	group	2	2.080	6.00	0.003	SNS ≈ FtF > NoC
	IM_pre	1	0.030	0.09	0.769	
	Residual	177	0.347			

Note. EM= Extrinsic Motivation; IM= Intrinsic Motivation,

Given that the FtF group showed the highest posttest mean scores for both EM ($M = 4.836$) and IM ($M = 4.514$), follow-up paired-samples t-tests were conducted to supplement the ANCOVA findings and examine whether motivation changed significantly within each group from pretest to posttest (Table 6).

Table 6. Within-Group Difference Shown in the *t*-test (Motivation)

	Group	pre/post	*Mean*	*SD*	*t*	*df*	*Sig.*
EM	SNS	pre	4.503	0.426	-0.820	58	0.416
		post	4.565	0.443			
	FtF	pre	4.409	0.810	-3.692	52	0.001
		post	4.836	0.461			
	No Contact	pre	4.396	0.409	-2.305	68	0.048
		post	4.652	0.394			
IM	SNS	pre	4.305	0.600	-0.707	58	0.483
		post	4.369	0.544			
	FtF	pre	4.123	0.798	-2.934	52	0.005
		post	4.514	0.568			
	No Contact	pre	3.949	0.651	-1.641	68	0.106
		post	4.141	0.635			

For EM, significant improvements were found in the FtF group ($p < .01$) and the no-contact group ($p < .05$), whereas no significant change was observed in the SNS group ($p = .416$). For IM, only the FtF group showed a significant pre-to-post improvement ($p < .01$), while the SNS and no-contact groups showed no significant changes. FtF intercultural contact was thus associated with the most consistent motivational gains, particularly for IM.

These statistical results indicate that both the presence and the mode of intercultural contact were associated with participants' motivational development. Specifically, students in the FtF group showed the strongest gains in both EM and IM, with FtF interaction being particularly effective in fostering IM for L2 learning. By contrast, SNS-mediated interaction showed a more limited motivational effect. For EM, the SNS group was comparable to the no-contact group and scored lower than the FtF group. For IM, although the SNS group was comparable to the FtF group

in the posttest comparison, the within-group results indicated a different pattern. Only FtF showed a significant increase from pretest to posttest, whereas SNS displayed only a small and nonsignificant change.

4.3 Relationship between IC and Motivation

Pearson's correlation analyses were conducted at the posttest as supplementary follow-up analyses to examine patterns of association among motivational and intercultural variables within each group. The results showed systematic relationships among ICC constructs, including knowledge, attitudes, skills, and awareness, across the three groups. Notably, in the SNS group, motivation was significantly associated with ICC and IS variables (Table 7). IM showed significant positive correlations with all ICC subcomponents and was strongly associated with IS-Enjoyment ($r = .618$, $p < .001$). EM was also significantly correlated with all ICC subcomponents and two of the three IS variables, but it was not significantly related to IS-Respect.

Table 7. Correlations between Motivation, ICC, and IS (SNS Group)

	EM	IM	ICC_Knlg	ICC_Att	ICC_Sk	ICC_Awr	IS_Res	IS_Conf	IS_Enj
EM	1								
IM	0.438***	1							
ICC_Knlg	0.163*	0.295***	1						
ICC_Att	0.474***	0.364***	0.511***	1					
ICC_Sk	0.315***	0.481***	0.709***	0.621***	1				
ICC_Awr	0.434***	0.303***	0.673***	0.658***	0.800***	1			
IS_Res	0.076	0.187*	-0.001	0.085	0.163*	0.158*	1		
IS_Conf	0.288***	0.238**	0.597***	0.494***	0.573***	0.617***	0.190*	1	
IS_Enj	0.356***	0.618***	0.489***	0.596***	0.510***	0.428***	0.163*	0.613***	1

*. The mean difference is significant at the 0.05 level.
**. The mean difference is significant at the 0.01 level.
***. The mean difference is significant at the 0.001 level.
Note. EM= Extrinsic Motivation, IM=Intrinsic Motivation, ICC-Knlg= ICC-Knowledge, ICC-Att: ICC-Attitudes, ICC-Sk= ICC-Skills, ICC-Awr= ICC-Awareness, IS-Res= IS-Respect, IS-Conf= IS-confidence, IS-Enj= IS-Enjoyment

The FtF group showed several significant associations between motivation and ICC constructs at the posttest (Table 8). IM was more consistently related to ICC than EM, as shown in significant, positive correlations between IM and ICC-Knowledge, ICC-Attitudes, ICC-Skills, and ICC-Awareness. EM was also significantly correlated with several ICC constructs, but the associations were generally weaker. In contrast, IS-Respect showed weak, inconsistent, or non-significant correlations with motivation and most ICC variables. This pattern may be partly explained by the consistently high respect scores at both testing points, which have weakened its correlations with other constructs.

Table 8. Correlations between Motivation, ICC, and IS (FTF Group)

	EM	IM	ICC_Knlg	ICC_Att	ICC_Sk	ICC_Awr	IS_Res	IS_Conf	IS_Enj
EM	1								
IM	0.499***	1							
ICC_Knlg	0.166*	0.393***	1						
ICC_Att	0.238**	0.339***	0.480***	1					
ICC_Sk	0.296***	0.375***	0.813***	0.412***	1				
ICC_Awr	0.269**	0.191*	0.709***	0.360***	0.843***	1			
IS_Res	0.213**	0.155	0.085	0.362***	0.210**	0.204*	1		
IS_Conf	0.229**	0.167*	0.528***	0.266**	0.535***	0.530***	-0.074	1	
IS_Enj	0.192*	0.218**	0.418***	0.492***	0.352***	0.339***	0.192*	0.632***	1

Interestingly, the no-contact group showed the most coherent correlational pattern. As seen in Table 9, IM was significantly and positively correlated with all ICC subcomponents, as well as with IS-Confidence and IS-Enjoyment. This result suggests that, in the context of classroom-based learning in intercultural communication, learners' motivation and intercultural competence were closely interconnected at the posttest.

Table 9. Correlations between Motivation, ICC, and IS (No Contact Group)

	EM	IM	ICC_Knlg	ICC_Att	ICC_Sk	ICC_Awr	IS_Res	IS_Conf	IS_Enj
EM	1								
IM	0.552***	1							
ICC_Knlg	0.215**	0.482***	1						
ICC_Att	0.453***	0.515***	0.468***	1					
ICC_Sk	0.298**	0.419***	0.667***	0.564***	1				
ICC_Awr	0.469***	0.458***	0.616***	0.553***	0.649***	1			
IS_Res	0.181*	0.246***	0.101	0.499***	0.210**	0.169*	1		
IS_Conf	0.281**	0.274**	0.751***	0.238**	0.679***	0.541***	0.033	1	
IS_Enj	0.406***	0.564***	0.617***	0.259**	0.579***	0.616***	0.100	0.742***	1

To summarize, in the SNS group, motivation was closely related to all IC constructs except IS-Respect. This suggests that SNS-mediated contact may be connected to motivation through learners' intercultural engagement. Although SNS interaction produced limited short-term motivational gains (Section 4.2), the posttest correlations indicate that its motivational relevance may become more visible through sustained participation. In the FtF group, motivation was also significantly related to several ICC constructs, although fewer strong correlations were found between motivation and IC. In both contact groups, IS-Respect showed weak or non-significant relationships with most variables, suggesting that respect may function as a relatively stable affective orientation. The no-contact group showed significant relationships between motivation and IC constructs. Classroom-based learning about intercultural communication was thus associated with stronger connections between the two sets of variables.

4.4 Students' Reflections on FtF and SNS Intercultural Contact Opportunities

The final research question qualitatively examined students' reflections on their intercultural contact experiences through either SNS or FtF interaction. In both groups, reflections clustered around two overarching themes: intercultural learning processes and SNS or FtF-specific strengths and challenges. Within these themes, several common codes emerged, including cultural knowledge, language awareness, affective responses, and views of English as a communicative tool, particularly ELF. However, these codes were manifested differently between the two groups.

4.4.1 Reflections from the SNS group

Students in the SNS group described that they acquired knowledge through explicit comparison during interaction. This intercultural learning was noted as gradual and reflective, as the asynchronous, text-based or multimodal format gave them time to read, think, and respond carefully. They highlighted flexibility, accessibility, and time for reflection as major strengths of SNS-mediated interaction, as shown below:

"We exchanged more than five posts regarding student alcohol consumption. I liked this flexibility in time. I would

have struggled to respond to a foreign partner right away if it had been a real-time, face-to-face meeting. These written exchanges allowed us to organize our thoughts carefully." (SNS101, male, Electrical Engineering, senior)

This form of knowledge development was frequently linked to language and identity. As shown in the following excerpt, reading a Korean-language post written by an American partner prompted one student to move beyond a binary national framing:

"During our talk about cultural coding of college life, Alex posted a photo along with a text written in Korean. That was a pleasant experience. Before then, I talked to him as Korean versus American. Now, it was more than that. I felt we belonged to the same community where my English, or his Korean language proficiency, was not a big deal. My initial anxiety about English speaking disappeared. We freely talked about startup culture and international business." (SNS206, male, undeclared, freshman)

As shown above, this shift in language and identity reflects an emerging ELF-oriented perspective, in which English is understood as a shared communicative resource among multilingual users rather than as something owned by native speakers. Since native-like proficiency is not prioritized from an ELF perspective, students became less concerned about language proficiency and less anxious about SNS interaction.

Students also identified challenges specific to SNS-mediated interaction. Without immediate interactional cues, SNS exchanges sometimes made it difficult to convey pragmatic intent and clarify cultural stereotypes, as quoted below:

"SNS is a good way of meeting people, but in terms of learning about culture, it is sometimes difficult to explain real differences or stereotypes, like 'Koreans are good at math' or 'mechanical engineers can fix any computer problem'. I wanted to share subtle but real differences following generalizations. Posts and replies felt just not enough." (SNS203, female, Chemical Engineering, junior)

4.4.2 Reflections from the FtF group

Students in the FtF group consistently described intercultural learning as experiential and relational. Cultural knowledge, corresponding to ICC-Knowledge, developed through direct interaction. Rather than being acquired as abstract information, cultural norms were encountered through immediate experience. For example, one student described learning culturally specific expressions of politeness while sharing a meal with a Turkish partner, as illustrated in the quotation below:

"We decided to eat out nearby. When the dishes were placed on our table, we talked about some expressions between Korean and Turkish cultures. He said he would say 'Ash bolsun,' meaning 'Enjoy your meal,' and it's used regardless of the food type. It was identical to the Korean expression 'masitge deuseyo'." (FtF207, male, Mechanical Engineering, sophomore)

This dining situation became a site of cultural learning, where language use was compared with the student's Korean cultural repertoire. Such experiential knowledge appeared to increase students' language awareness through spontaneous comparisons with their interlocutors' cultural and linguistic practices. As these differences became

immediately noticeable during interaction, they often brought course topics into focus:

"Claire said the French people tend to get emotional and express their emotions in a more direct manner. Her native language, French, is full of expressions of diverse emotions and it was interesting that this was shown through when she was speaking English. This reminded me of 'language shapes how people act and think' from the class. English is only a tool. My Korean identity will also be shown through regardless of my English proficiency level. I felt more comfortable about speaking English since then." (FtF124, female, Business Administration, sophomore)

"It was invigorating to get my meaning across to a German friend in English when I knew my English is not so good. He is not American or British. So my or his English level was not a problem. Our conversation felt natural and enjoyable, like meeting a close friend rather than doing a project. We kept talking after each meeting through Kakaotalk, particularly about different career paths before us." (FtF217, male, Computer Engineering, junior)

As shown above, the student's observation of a French partner's expressive communication style contributed to a reconceptualization of English as a lingua franca rather than simply a foreign language (FtF124). A similar shift appeared in another student's reflection after interacting with a partner whose first language was not English (FtF217). For this student, the ELF-oriented view reduced anxiety about linguistic accuracy and made the conversation feel authentic rather than merely task-driven.

Despite these strengths, students also identified several challenges inherent in FtF interaction. Meetings involved schedule coordination and physical presence, which sometimes made participation more demanding. Real-time responses also made it difficult for some students to organize their thoughts, particularly when they discussed sensitive or complex topics:

"Sometimes I needed more time to organize my thoughts, but because the conversation continued, I had to respond right away. My English speaking is not good and I felt lost for words sometimes when asked about my thought on a topic like Korean politics. It was awkward." (FtF124, female, Business Administration, sophomore)

In sum, students' reflections showed that the two modes played complementary roles in fostering intercultural learning and ELF-oriented understandings of English. SNS-mediated contact supported gradual reflection, explicit explanation, and reduced concern about language proficiency, whereas FtF contact encouraged experiential learning, active engagement, and direct comparison of cultural practices. Each mode also presented distinct challenges: SNS-mediated contact sometimes constrained the clarification of pragmatic meanings and cultural assumptions, while FtF contact created pressure to respond in real time.

5. Discussion

The findings show how three conditions of intercultural learning, SNS-mediated contact, FtF contact, and no-contact, differentially influenced Korean EFL learners' intercultural competence and English learning motivation in a tertiary EMI setting in Korea. Clearly, intercultural engagement in the SNS and FtF groups played a central role in the development of IC, comprising ICC and IS, as well as motivation and further contributed to learners' ELF-oriented views of English. More importantly, the mode of contact appeared to influence not only these learning

outcomes but also the relationship between IC and motivation. These findings warrant further discussion for their important implications for EMI curriculum design.

First, both SNS and FtF contact were effective in enhancing ICC, with the pattern 'SNS ≈ FtF > No Contact' observed across most ICC and IS dimensions. This finding confirms prior research indicating that both in-person and digitally mediated interaction can facilitate intercultural learning when opportunities for engagement and reflection are present (Alaei and Aghblagh 2020, Erhel et al. 2022). Nevertheless, the two modes differed in the type of intercultural development they were related with. SNS contact was particularly effective in supporting ICC-Knowledge, ICC-Skills, ICC-Awareness, and IS-Confidence. Its written and asynchronous nature may have allowed students to articulate cultural differences explicitly, revisit interactions, and build understanding over time. Given that these features are less available in real-time communication, SNS-mediated interaction may make a distinctive contribution to cognitive and reflective dimensions of IC (Yuksel and Inan 2014, Zeng 2017). FtF contact was particularly effective in fostering IS-Respect, whereas SNS contact did not differ significantly from No Contact on this affective construct. This may reflect the relational nature of respect. Compared with asynchronous SNS exchange, FtF interaction in shared physical spaces, such as campus cafés or nearby restaurants, provided stronger social presence, immediate feedback, non-verbal cues, and conversational spontaneity. As respect is closely tied to affective engagement (Chen and Starosta 2000), these features of FtF interaction may have helped students develop respect for cultural differences.

Another key finding concerns group differences in motivational change. Quantitative results showed that students engaged in FtF intercultural contact demonstrated the strongest gains, with significant increases in both EM and IM. By contrast, SNS contact showed a more limited motivational effect, although the SNS group was comparable to the FtF group in posttest IM. The no-contact group showed a modest gain in EM but no significant change in IM. This pattern suggests that in-person, co-present interaction may be particularly effective in fostering IM, in line with self-determination theory (Deci and Ryan 2002). From this perspective, IM is promoted when learners experience autonomy, competence, and relatedness. As shown in the qualitative findings, FtF contact may address these needs by allowing learners to manage interaction, receive immediate feedback, and build interpersonal connections. In contrast, although asynchronous SNS exchanges allowed time for reflection, they provided fewer opportunities for real-time turn-taking, immediate emotional feedback, and spontaneous relational bonding. Qualitative reflections further indicated that students experienced FtF interactions as meaningful rather than task-driven. These experiences appeared to strengthen enjoyment and confidence, which are important for sustaining IM (Ryan and Deci 2000, Ushioda 2017).

The follow-up correlation analysis helps explain the limited short-term motivational effect of SNS contact by pointing to the possible roles of task design and duration. Given the strong relationships between motivation and IC constructs, SNS-mediated contact may still support motivation when it includes concrete language-learning goals and extended opportunities for interaction. In the present study, however, SNS activities emphasized intercultural communication and reflection over one semester rather than explicit linguistic skill development. This echoes Kormos and colleagues' (2014) argument that motivational development is closely tied to clearly articulated language-learning goals. The relative absence of such goals in the SNS tasks may therefore have limited short-term motivational gains. Importantly, this interpretation does not rule out longer-term motivational growth, as more explicit motivational effects may emerge through sustained participation over time.

Finally, the qualitative analysis showed that intercultural contact contributed to ELF-oriented understandings of English within the EMI context. In reflections from both the SNS and FtF groups, some students explicitly described a shift in their view of English from a classroom-based foreign language to a shared communicative resource among multilingual users, a central perspective in ELF scholarship (Baker and Sangiamchit 2019, Hsieh et al. 2022, Murata

2019). In the FtF group, interaction with non-native English speakers reduced anxiety about linguistic accuracy and encouraged students to view English as a pragmatic tool for communication rather than as evidence of linguistic competence. This reorientation is consistent with the view that ELF awareness often emerges through authentic multilingual encounters rather than explicit instruction (Kim 2014, Timpe-Laughlin et al. 2024). Likewise, in the SNS group, exposure to multilingual posts and flexible language use helped some students move beyond national framings and proficiency hierarchies. These findings suggest that intercultural contact created spaces in which learners began to understand English as a flexible resource for negotiation, relationship-building, and meaning-making across linguistic and cultural differences. EMI institutions can build on these benefits by creating sustained opportunities for intercultural communication that support ELF socialization (Hsieh et al. 2022, Murata 2019).

6. Conclusion: Pedagogical Implications, Limitations, and Future Directions

Based on these discussions, several pedagogical implications can be drawn for the design of intercultural learning in EMI contexts. First, given that both the SNS and FtF groups outperformed the no-contact group across most dimensions of ICC and IS, EMI curricula should move beyond content delivery alone and purposefully incorporate opportunities for intercultural engagement. FtF interaction appears particularly effective for fostering IM, intercultural respect, and affective engagement, whereas SNS-mediated interaction promotes intercultural knowledge, awareness, confidence, and reflection. Rather than privileging one mode over the other, EMI programs may benefit from strategically combining the two modes according to specific instructional goals.

The discussion also highlights the pedagogical relevance of ELF in EMI settings. EMI instructors can embed ELF-oriented pedagogy in intercultural task design by creating activities such as small-group discussions, intercultural peer exchange, and sustained SNS-based reflection, all of which encourage students to negotiate meaning across linguistic and cultural differences. Such activities can help learners reduce anxiety about linguistic accuracy, develop greater communicative confidence, and engage more flexibly with multilingual English use. Pedagogical implementation should also be mode-sensitive. When the instructional goal is to cultivate affective openness, relational engagement, and IM, FtF intercultural activities may be especially effective. When access, scheduling, or institutional constraints make direct contact difficult, SNS-based interaction can serve as a meaningful alternative, particularly for promoting reflection, intercultural awareness, and confidence through extended exchange. To serve this role effectively, SNS-based tasks should be carefully scaffolded with clear communicative goals, reflective prompts, and opportunities for sustained participation.

Finally, effective implementation requires professional development for EMI instructors. To integrate intercultural competence systematically into EMI curricula, instructors need training in IC-focused task design, scaffolding strategies, and reflective facilitation that helps students critically interpret their intercultural experiences and connect them to ELF-oriented communication. Such preparation can help instructors design activities that prioritize communicative effectiveness, intercultural awareness, and flexible language use from an ELF-oriented perspective rather than EFL norms alone. Professional development with this focus can better equip instructors to guide students toward global competence beyond formal language proficiency, while also supporting sustainable internationalization in higher education.

Several limitations of this study should be considered. First, the research was conducted at a single EMI institution, and participants had prior experience with EMI courses; therefore, the findings should be generalized cautiously to other EMI contexts. Second, both contact conditions allowed considerable student autonomy, so interaction partners

and the amount and format of intercultural contact were not systematically controlled. This likely resulted in variation in partner familiarity, English proficiency, nationality, and willingness to interact. Although students in both the FtF and SNS groups were required to complete at least one initial interaction for each thematic unit, the frequency and mode of subsequent interaction varied across individuals and may have affected the quality and intensity of contact. Finally, the intervention lasted only one academic semester, which restricts conclusions about longer-term development in motivation, IC, and ELF orientation. Future research that addresses these limitations could clarify the contributions of mode-embedded intercultural contact and further inform the design of intercultural curricula in EMI settings.

References

Abella-García, V., V. Delgado-Benito, V. Ausín-Villaverde and D. Hortigüela-Alcalá. 2019. To tweet or not to tweet: Student perceptions of the use of Twitter on an undergraduate degree course. *Innovations in Education and Teaching International* 56(4), 402-411.

Adams, B., A. Raes, H. Montrieux and T. Schellens. 2018. Pedagogical tweeting in higher education: Boon or bane? *International Journal of Educational Technology in Higher Education* 15(1), Article 19.

Alaei, M. M. and M. M. Aghblagh. 2020. Exploring the association between Iranian EFL learners' intercultural contact and L2 motivational self system. *Journal of Intercultural Communication Research* 49(6), 569-584.

Aubrey, S. and A. Nowlan. 2013. Effect of intercultural contact on L2 motivation: A comparative study. In M. Apple, D. Da Silva and T. Fellner, eds., *Language Learning Motivation in Japan*, 129-151. Bristol, England: Multilingual Matters.

Bailey, D., N. Almusharraf and R. Hatcher. 2021. Finding satisfaction: Intrinsic motivation for synchronous and asynchronous communication in the online language learning context. *Education and Information Technologies* 26(3), 2563-2583.

Baker, W. and F. Fang. 2021. 'So maybe I'm a global citizen': Developing intercultural citizenship in English medium education. *Language, Culture and Curriculum* 34(1), 1-17.

Baker, W. and C. Sangiamchit. 2019. Transcultural communication through English as a lingua franca in a social network community. *Language and Intercultural Communication* 19(6), 471-487.

Byram, M. 1997. *Teaching and Assessing Intercultural Communicative Competence*. Clevedon, England: Multilingual Matters.

Byram, M. 2021. *Teaching and Assessing Intercultural Communicative Competence: Revisited*. Bristol, England: Multilingual Matters.

Chen, G.-M. and W. J. Starosta. 2000. The development and validation of the intercultural sensitivity scale. *Human Communication* 3, 1-15.

Creswell, J. W. 2014. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 4th ed. Los Angeles, CA: SAGE Publications.

Csizér, K. and J. Kormos. 2009. Modelling the role of intercultural contact in the motivation of learning English as a foreign language. *Applied Linguistics* 30(2), 166-185.

Deci, E. L. and R. M. Ryan. 2002. *Handbook of Self-Determination Research*. Rochester, NY: University of Rochester Press.

Dörnyei, Z. and K. Csizér. 2005. The effects of intercultural contact and tourism on language learning motivation. *Journal of Language and Social Psychology* 24(4), 327-357.

Dörnyei, Z. and I. Ottó. 1998. Motivation in action: A process model of L2 motivation. *Working Papers in Applied Linguistics* 4, 43-69.

Erhel, S., N. Michinov, A. Noël and C. Gonthier. 2022. Tweet to teach: Using a Twitter-based instructional method. *The Internet and Higher Education* 55, Article 100876.

Fang, F., T. McConachy and R. Yuan. 2024. Intercultural learning and identity development as a form of teacher development through study abroad: Narratives from English language practitioners. *Language, Culture and Curriculum* 37(2), 247-266.

Grgurović, M., C. A. Chapelle and M. C. Shelley. 2013. A meta-analysis of CALL effectiveness. *ReCALL* 25(2), 165-198.

Hammer, M. R., M. J. Bennett and R. Wiseman. 2003. Measuring intercultural sensitivity. *International Journal of Intercultural Relations* 27(4), 421-443.

Han, Y. and K. McDonough. 2021. Motivation as individual differences and task conditions from a regulatory focus perspective: Their effects on L2 Korean speech performance. *Innovation in Language Learning and Teaching* 15(1), 1-12.

Hernández, T. 2010. Motivation, interaction, and L2 oral proficiency. *Modern Language Journal* 94(4), 600-614.

Hsieh, M.-H., H.-H. Chuang and D. Albanese. 2022. Investigating student agency and affordances during online virtual exchange projects in an ELF context from an ecological CALL perspective. *System* 109, Article 102888.

Hutchby, I. 2014. Communicative affordances and participation frameworks in mediated interaction. *Journal of Pragmatics* 72, 86-89.

Jackson, J. 2018. *Interculturality in International Education*. New York: Routledge.

Kim, H. Y. 2014. Learning opportunities in synchronous computer-mediated communication and face-to-face interaction. *Computer Assisted Language Learning* 27(1), 26-43.

Kim, J. 2020. International students' intercultural sensitivity in their academic socialisation to a non-English-speaking higher education: A Korean case study. *Journal of Further and Higher Education* 44(7), 939-955.

Kim, J. 2025. SNS-based intercultural contact in an EMI context: Fostering EFL learners' motivation and intercultural competence. *The Journal of Asia TEFL* 22(3), 557-575.

Kormos, J., K. Csizér and J. Iwaniec. 2014. Motivation and intercultural contact. *Journal of Multilingual and Multicultural Development* 35(2), 151-166.

Lai, C. and C.-P. Tai. 2021. Types of social media activities and Hong Kong South and Southeast Asians youth's Chinese language learning motivation. *System* 97, Article 102432.

Murata, K., (Ed.). 2019. *English-Medium Instruction from an English as a Lingua Franca Perspective: Exploring the Higher Education Context*. New York: Routledge.

Murphy, D. and S. K. Sedivy. 2024. The speaking proficiency outcomes of face-to-face and online intensive summer LCTL programs. *Foreign Language Annals* 57(4), 872-899.

Norton, B. 2013. *Identity and Language Learning: Extending the Conversation*. 2nd ed. Bristol, England: Multilingual Matters.

Peng, R.-Z. and W.-P. Wu. 2016. Measuring intercultural contact and its effects on intercultural competence: A structural equation modeling approach. *International Journal of Intercultural Relations* 53, 16-27.

Piechurska-Kuciel, E. and M. Rusieshvili. 2021. Intercultural sensitivity of multilingual adolescents. *International Journal of Multilingualism* 18(3), 352-369.

Reinhardt, J. 2019. Social media in L2 teaching and learning. *Language Teaching* 52(1), 1-39.

Ribeiro, A. and Z. R. Eslami. 2025. Second language development in face-to-face versus synchronous computer-

mediated interactions: Dyadic type and language proficiency. *Language Teaching Research* 29(4), 1780-1806.

Ryan, R. M. and E. L. Deci. 2000. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology* 25(1), 54-67.

Ryan, S. D., M. J. Magro and J. H. Sharp. 2011. Exploring educational and cultural adaptation through social networking sites. *Journal of Information Technology Education: Innovations in Practice* 10, 1-16.

Seidlhofer, B. 2011. *Understanding English as a Lingua Franca*. Oxford: Oxford University Press.

Semaan, G. and K. Yamazaki. 2015. The relationship between global competence and language learning motivation: An empirical study in critical language classrooms. *Foreign Language Annals* 48(3), 511-520.

Skidmore, M. 2026. Effects of participation in an online intercultural exchange on drivers of L2 learning motivation. *Language Teaching Research* 30(1), 430-448.

Timpe-Laughlin, V., T. Sydorenko and J. Dombi. 2024. Human versus machine: Investigating L2 learner output in face-to-face versus fully automated role-plays. *Computer Assisted Language Learning* 37(1-2), 149-178.

Ushioda, E. 2017. Global English and motivation. *The Modern Language Journal* 101(3), 469-482.

Xin, Z. 2024. Informal L2 learning through video social media platforms: An exploration of use of Bilibili and L2 learner's self-regulated learning. *Frontiers in Educational Research* 7(9), 138-147.

Yuksel, D. and B. Inan. 2014. The effects of communication mode on negotiation of meaning and its noticing. *ReCALL* 26(3), 333-354.

Zeng, G. 2017. Collaborative dialogue in synchronous computer-mediated communication and face-to-face communication. *ReCALL* 29(3), 257-275.

Examples in: English
Applicable Languages: English
Applicable Level: Tertiary

