# Cultural Intelligence of English Language Learners and Their Perceived Strengths and Weaknesses in Intercultural Communication

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## Abstract

The ability to adapt and thrive in an unfamiliar cultural context is incrementally becoming vital. Therefore, universities aim to create an environment to enhance students' cultural intelligence (CQ). This study aimed to detect English as a foreign language (EFL) learners' CQ in a state university in Turkey and discern their strengths and weaknesses in intercultural communication. The study employed the CQ scale to detect learners' CQ, and open-ended questions to unearth strengths and weaknesses. SPSS was run for quantitative analysis, whereas MAXQDA was tapped for qualitative data analysis. The results indicated high values for students' metacognitive, motivational, and behavioural CQ, albeit learners' cognitive CQ was moderate. There was no significant difference between the CQ of male and female students. Moreover, the overseas experience did not have a significant influence on their CQ. However, there was a significant difference in the cognitive CQ of students at different proficiency levels. Qualitative analysis revealed learners' strengths, such as communication and adaptation skills, and an interest in diverse cultures. However, learners' scant knowledge of different cultures and low language proficiency were significant problems impeding learners' intercultural communication. The implications of the study might provide insight for stakeholders to raise students' CQ in educational spheres.

*Keywords*: Cultural intelligence; intercultural competence; intercultural communication

The world is shrinking and the contact between people from diverse countries is incessantly extending due to advances in technology. Many people from diversified settings come together to work efficiently in many fields, such as trade, marketing, health, or education in international companies. These individuals are constantly interacting with their socially and culturally different colleagues.

As Fang et al. (2018) claimed, with the advances in technology, international communication is far easier than in the past, yet these developments also bring misunderstandings and conflicts. Many individuals come from various cultural and social backgrounds and bring their own cultural biases and taboos. The differences in their social and cultural framework might affect

how they perform the tasks and how they communicate with their peers and managers at work. Thus, having a high intelligence quotient (IQ) does not guarantee success in business because the skills related to emotional intelligence (i.e., the capability of regulating and managing one's and others' emotions) and social intelligence (i.e., understanding and managing others and acting appropriately in social settings) are equally needed. However, having high emotional and social intelligence does not even guarantee advanced performance, especially when people work in diverse cultural contexts (Livermore, 2011, p.21). Therefore, international experience has been prioritized during the recruitment process for the last four decades (Lambert Snodgrass et al., 2023). Employers are searching for people who are tolerant towards cultural differences and able to work harmoniously with individuals from diverse backgrounds. This has yielded an increasing number of university students studying abroad, which has triggered an intercultural opening of tertiary education institutions (Brancu et al., 2016, p.337). Many universities are accepting students from various countries, and they have raised the capacity for exchange programs. To summarize, while employers search for employees that can survive in multicultural settings, university leaders seek ways to train candidates who are equipped with intercultural skills (Lambert Snodgrass et al., 2021).

Concomitantly, cultural intelligence, or cultural quotient (CQ) – the capability to function effectively in intercultural settings – has gained tremendous attention from both scholars and practitioners owing to its relevance to globalization, international management, and workforce diversification (Van Dyne et al., 2012, p.295). The term CQ was primarily introduced by Earley and Ang (2003), and it has been widely acclaimed among business circles because the appreciation of cultural differences and openness to other views lead to better business practices. When confronted with unconventional behaviours or viewpoints, individuals with high CQ employ multiplex strategies to shape their behaviours. When something awkward or random happens, they have a logical framework to discern whether it is explained by culture or unique to a specific person or organization (Livermore, 2011). CQ is also claimed to promote psychological well-being, intercultural adjustment, and adaptation to the job setting (Ang, et al., 2020). Consequently, having a high CQ is becoming increasingly vital across the world.

Due to the strategic and geopolitical status of Turkey, acquiring English, the common language of international communication, science, technology, and business world (Kırkgöz, 2007), and developing one's cultural intelligence is a pivotal issue in Turkey as well. Turkish citizens need English to keep pace with the developments in diverse fields and a high level of cultural intelligence to be able to survive and excel in intercultural communication. Therefore, English is the only compulsory foreign language taught in Turkish primary and high schools. Both public and private universities offer compulsory and optional English language courses. However, English medium instruction (EMI) universities are the unique institutions where English is widely practiced and internationalization is highly observed. Thanks to English instruction, many students from diverse countries can study at these universities. In EMI universities, learners are expected to complete a one-year preparatory school to survive in their departments and their jobs. In a preparatory program, students' primary focus is to develop their English language communication skills, so they learn not only the structure of the language but also how to speak and write in it. Their long-term goal is to be recruited internationally when they graduate. Therefore, their motivation to study English is primarily to become global citizens needed in international companies or to have access to resources and communities relevant to their work.

Contrary to language learning facilities in the Turkish context, the opportunities to enhance CQ are scarce due to the scanty longitudinal contact with individuals from other cultures. Except for touristic visits to other countries, communication with foreigners is limited to the expatriates and international students studying at EMI universities. Given this, the English language learning context, a preparatory program at EMI universities is a great place to improve

intercultural skills. The language learners are exposed to different views and cultural frameworks with both language instruction and a multicultural classroom environment. That is, the language learners ascertain how to respect cultural diversity while learning an international language that connects the world. They have the opportunity to meet international instructors and befriend peers from distinctive cultural spheres or worldviews. They can explore the impact of various social and cultural factors on their interaction with individuals from diverse cultures.

However, to cultivate intercultural abilities in a language learning context and advance learners' cultural intelligence, it is also necessary to understand learners' current attitudes and dispositions regarding intercultural communication. Language educators and administrators may gain insight into learners' strengths and weaknesses in intercultural communication and they could create action plans to promote language acquisition as well as learners' CQ.

The aims of this study are, therefore, to

(1) determine the level of cultural intelligence of English language learners

(2) identify their perceived strengths and weaknesses in intercultural communication

Given these aims, the research questions were formulated as follows:

(1) What is the overall CQ level of English language learners?

(a) Is there a significant difference in the CQs of language learners of different proficiency levels?

(b) Is there a significant difference between the male and female language learners' CQ?

(c) Is there a significant difference between the CQ of language learners with and without overseas experience?

(2) What are the strengths and weaknesses of English language learners in intercultural communication?

## Conceptual framework

### Defining Cultural Intelligence and Its Sub-Dimensions

Ang et al. (2007) defined CQ as the ability of a person to function effectively in diverse cultural spheres. They also emphasized the grave importance of adjusting behaviour based on the requirements of the cultures with which people interact. CQ had four main dimensions: metacognitive, cognitive, motivational, and behavioural. These dimensions are discussed in depth in this section because they constitute the overall CQ and help to classify and interpret learners' strengths and weaknesses in intercultural communication.

Metacognitive CQ is related to an individual's level of cultural awareness and processing during cross-cultural interactions (Ang & Van Dyne, 2008). Van Dyne et al. (2012) mentioned three subscales for metacognitive CQ: planning, awareness, and checking. Planning is more observable before the interaction, as the individual profoundly thinks about the upcoming intercultural experience and estimates potential problems. Rather than being proactive, awareness is linked to real-time awareness of how culture influences communication. Finally, checking entails the regulation and revision of assumptions and interpretations based on real experiences.

Cognitive CQ is the knowledge of other cultures, specifically the knowledge about cultural perspectives, practices, and products such as economic and legal systems; history, politics, geography, art, norms for social interaction, and religion in diverse cultures (Ang et al., 2020; Early & Ang, 2003; Van Dyne et al., 2012). Van Dyne et al. (2012) differentiated between culture-general knowledge, which involves universal elements like power distance,

collectivism vs. individualism, and role expectations for males and females, and context-specific knowledge, which is based on the procedural knowledge in a specific country or society in their reconceptualization of the cognitive CQ.

Motivational CQ is an individual's affinity for experiencing other cultures and interacting with different cultures, in addition to their self-confidence in intercultural encounters (Ang et al., 2006; Earley & Ang, 2003). Van Dyne et al. (2012) expanded the conceptualization and differentiated intrinsic interest, which offers satisfaction and enjoyment, from extrinsic interest, i.e., external profits. Ang et al. (2020) sustain that motivational CQ is a significant determiner of whether an individual will approach or avert from intercultural contact.

Behavioural CQ is to enact proper verbal and non-verbal behaviours while interacting with individuals from different cultures (Earley & Ang, 2003). Van Dyne et al. (2012) identified three sub-dimensions of behavioural CQ: verbal behaviour, non-verbal behaviour, and speech acts.

To conclude, all these dimensions constitute the overall cultural intelligence of an individual. Therefore, the working definition of cultural intelligence in this paper is the ability to function effectively in intercultural interactions and diverse social and cultural settings. This requires not only enthusiasm for different cultures but also knowledge of different cultural frameworks. Additionally, the flexibility of language use and adjustment of behaviours based on cultural norms or social spheres have pivotal roles in effective intercultural communication.

## Review of literature

A review of the literature indicated that, while the majority of CQ research have been undertaken with people working in business-related sectors, there have been a number of studies with university students, mostly to validate the CQ scale in various contexts. (Alahdadi & Ghanizadeh, 2017; Atan, 2020; Brancu et al., 2016; Khodadady & Ghahari, 2011; Lin & Shen, 2020; Ozaslan, 2017; Senel, 2020). Some of these studies were carried out with foreign or international university students (Baez, 2014; Gökten & Emil, 2019; Konate, 2018; Rana et al., 2020). However, studies inquiring CQ of English as foreign language (EFL) learners are notably scarce (Azizi et al., 2015; Chao, 2013; Ghoonsoly et al., 2015; Kahraman, 2016). Since this specific study focuses on the impact of some features such as gender, proficiency level, and overseas experiences on the CQ of EFL learners, the studies reviewed here were selected considering these features.

In the Turkish context, Atan (2020) conducted a study on 303 pre-service teachers from various departments at a state university. The results showed that gender did not make any difference in the CQ levels of the participants, albeit significant differences were found in terms of some demographic variables: age, class, and department. In addition, the number of countries visited seemed to increase the participants' cultural intelligence levels. Senel (2020) investigated students majoring in English, German and French departments at a state university in Turkey. Similar to Atan's (2020) study, the department of learners had a significant impact on their CQ. French department students had a higher metacognitive CQ. Unlike Atan's (2020) study, gender influenced CQ, and males exhibited higher metacognitive CQ than female students.

Gökten and Emil (2019) compared university students who had participated in the Erasmus Student Mobility program with those who had not. The results indicated significantly higher cultural intelligence levels for students with Erasmus experience. Similarly, in her thesis study, Ozaslan (2017) found that students who had the experience of visiting an English-speaking country had significantly higher mean scores in all factors: cognitive, metacognitive, behavioural, and motivational. Third-grade students had the highest meta-cognitive and motivational CQ levels, and fourth-grade students had the highest cognitive and behavioural CQ levels. Similar to Senel's (2020) study, gender influenced the sub-dimensions of CQ. Male

participants had significantly higher cognitive CQ. On the other hand, neither the department nor age was a significant determiner of the CQ of students. Kahraman's (2016) study on language learners substantiated that English proficiency level, attitudes towards English, and language learning strategies were good predictors of CQ. Finally, Konate (2018) investigated foreign students' CQ at two universities in the Turkish context. The cognitive values were weaker than the motivational, behavioural, and metacognitive values.

In other contexts, Brancu et al. (2016) carried out research on business students in Romania. Students with overseas experience for at least one month showed significantly higher scores for the behavioural sub-dimension than those that have not studied abroad at all. Male students had comparatively higher behavioural CQ than female students. Kaur and Pany's (2018) investigation of the foreign students' CQ and cross-cultural adjustment in Indian universities illustrated that the males and females studying in different universities in Punjab did not differ significantly in their CQ. Rana et al. (2020) did similar research in the Indian context. The findings indicated a lower level of CQ among international students in India. Azizi et al. (2015) studied advanced EFL learners' CQ and its relationship with home culture attachment in the Iranian context. The results showed that males had higher scores than females. Age did not have a significant impact. Khodadady and Ghahari (2011) conducted a study on graduate and undergraduate students and found no significant difference between the overall CQ of males and females, yet female participants' meta-cognitive CQ was significantly higher than the males. The participants without overseas experience surpassed those who had travelled, contrary to Brancu et al.'s (2016) findings.

To summarize, the research studies inquiring into the impact of such independent variables as gender, age, and overseas experience displayed contradictory results. A few studies revealed that gender had a significant influence on CQ (Azizi et al., 2015; Brancu et al., 2016; Ozaslan, 2017; Senel, 2020), while others indicated no significant difference between males and females (Ghonsooly & Golparvar, 2013; Kaur & Pany, 2018; Khodadady & Ghahari, 2011; Ozdemir, 2019). Some inquiries found that age was not an influential factor in the CQ of students (Azizi et al., 2015; Ozaslan, 2017), whereas in others, age created a significant difference in CQ (Atan, 2020; Senel, 2020). In certain studies, the CQ of the students with and without overseas experience varied significantly (Brancu et al., 2016; Gökten & Emil, 2019; Ozaslan, 2017), although there were contradictory findings in others (Khodadady & Ghahari, 2011). This mixed-method study is another attempt to detect the CQ of university students at EMI universities and to expand the literature on CQ, particularly in the EFL context.

## Methodology

This study adapted a mixed methods approach and had a convergent parallel design (Creswell, 2012). That is, the researcher gave equal importance to both quantitative and qualitative means, and both types of data were collected simultaneously via an online survey. The purpose of such a design was to compare the results obtained from qualitative and qualitative analyses to discern the similarities and discrepancies.

### Context and Participants

The context was a preparatory program of the School of Foreign Languages at an EMI state university in Turkey. The preparatory program identified learners' proficiency level in English via an international placement test, which consisted of 80 questions. This test assessed students' knowledge of grammar and vocabulary, as well as reading and listening skills. Students were placed in such levels as elementary, pre-intermediate, intermediate, and upper-intermediate based on the results of this placement test at the beginning of the semester. The sampling method was convenience sampling. 289 volunteer language learners replied to the online survey. Their ages ranged from 18 to 35 years old. The majority of the students, however, were

between the ages of 18 and 19. Table 1 below contains information on the number of students studying at each proficiency level.

**Table 1. Demographics of Language Learners.**

| | | | F | % |
|---|---|---|---|---|
| Level | Elementary | | 155 | 53.6 |
| | Pre-intermediate | | 66 | 22.8 |
| | Intermediate | | 33 | 11.4 |
| | Upper-intermediate | | 35 | 12.1 |
| Gender | Male | | 105 | 36.3 |
| | Female | | 184 | 63.7 |
| Overseas Experience | Yes | | 29 | 10.0 |
| | No | | 260 | 90.0 |
| | | Total | 289 | 100 |

In Table 1 above, the majority of the language learners were at the elementary level during the conduct of the study. Females outnumbered the males, and only 10% of the learners had been abroad.

**Data Collection Tools and Procedure**

The 20-item scale, developed by Ang et al. (2007), was utilized to measure the CQ of language learners. It has gone through a comprehensive validation process, and literature suggests that it is generalizable (Van Dyne et al., 2012). There are four subscales: metacognitive, cognitive, motivational, and behavioural. A 7-point Likert scale was used as recommended by the Cultural Intelligence Center and Linn Van Dyne, one of the pioneering researchers on CQ. In this study, since language learners' proficiency levels varied from elementary to upper-intermediate, learners were asked to respond to the Turkish version of the scale that was validated and detected to be reliable in assessing university students' CQ in a previous study (Ilhan & Cetin, 2014). The researcher received permission to use the Turkish scale from these authors.

Reliability analysis was also carried out in the present study. Internal consistency values were $\alpha = 0.753$ for Metacognitive CQ, $\alpha = 0.794$ for Cognitive CQ, $\alpha = 0.794$ for Motivational CQ, and $\alpha = 0.679$ for Behavioural CQ. The Cronbach's Alpha value for the whole scale was detected to be .89.

Open-ended questions were formulated as follows:

• What are your strengths in intercultural communication?

• What are your weaknesses in intercultural communication?

An online survey, which consisted of the demographic questions, a Turkish scale, and two open-ended questions indicated above, was designed via Google Form. Before participants responded to the survey, they checked the approval sign in a consent form. They knew that they could leave the questionnaire at any time if they felt uneasy or did not want to respond anymore.

The ethics committee approval was received from the university where the study was carried out (Decision no: 2020/8039). That is, experts analysed questionnaire items to ensure they did not cause any psychological harm to learners. The link to this online survey was shared with the students via e-mail, and 289 language learners responded to the online survey.

**Data Analysis**

Quantitative data were analysed via Statistical Package for the Social Sciences (SPSS). The mean values for each subscale were calculated and interpreted using descriptive statistics. The overall CQ of the learners was identified through the calculation of the mean scores of four sub-dimensions of the scale. The Mann-Whitney U Test was implemented to detect any possible

impact of gender and overseas experience as the data were not homogeneously distributed. The Kruskal Wallis test was implemented to detect any differences across the four different language proficiency levels.

Qualitative data analysis started with the thoughtful reading and re-reading of the open-ended responses and consideration of conceptual framework, i.e., cultural intelligence and its sub-components. Students' self-reports were transferred to the MAXQDA program, a qualitative data analysis tool, which offered the researcher many options such as listing the codes, matching them with samples, categorizing codes with color-coding, and re-arranging the overlapping codes based on the emerging themes and categories.

In the analysis, three recursive cycles were systematically followed: open, axial, and selective coding (Corbin & Straus, 1990). In the open coding, similarities and differences were considered, and similar codes were grouped together. The names of the main categories were formed based on the sub-categories of the CQ scale e.g., metacognitive, cognitive, behavioural, and motivational. This pattern offered the researcher a systematic lens for the analysis. In the axial coding process, relationships among codes were revisited and the reconceptualization of CQ (Van Dyne et al., 2012) was also considered during this coding process. For instance, the codes under the metacognitive category were renamed based on the sub-dimensions such as awareness, checking, and planning. The last step, selective coding, helped the researcher to arrive at some core themes to interpret the data. Sample excerpts were translated into English and cross-checked by a native speaker of Turkish who is working as an English language instructor at a university to avoid any misinterpretation or under-representation.

## Findings

Aside from their overall CQ, the statistical findings indicated language learners' metacognitive, cognitive, motivational, and behavioral CQ. The differences in learners' CQ based on criteria like gender, overseas experience, and competence level were discussed. Students' open-ended responses also exposed their strengths and weaknesses in intercultural communication, and excerpts from language learners' responses were shared in this section.

**Cultural Intelligence Level of English Language Learners**

**Table 2. CQ of Language Learners.**

|  | N | Mean | SD |
|---|---|---|---|
| Metacognitive | 289 | 5.50 | 0.91 |
| Cognitive | 289 | 4.63 | 0.99 |
| Motivational | 289 | 5.55 | 1.05 |
| Behavioural | 289 | 5.19 | 0.90 |
| Total | 289 | 5.22 | 0.78 |

Note. (1=strongly disagree; 7=strongly agree)

Based on the intervals (1.00-2.99 = Low, 3.00-4.99 = Moderate, 5.00-6.99 = High), learners' CQ level could be considered high for metacognitive ((M=5.50, SD= 0.91) motivational (M=5.55, SD= 1.05) and behavioural (M=5.19, SD= 0.90) subscales, whereas their cognitive CQ level was detected to be moderate (M=4.63, SD= 0.99). Overall, learners' CQ could be considered high (M=5.22, SD= 0.78).

The Mann-Whitney U test showed no significant difference between male and female students' CQ scores (U = 9599.5, p =.929). Furthermore, the CQ scores of students with and without overseas experience were not significantly different (U = 3227, p = .203).

On the other hand, the Kruskal Wallis test indicated a significant difference between the CQ scores of different proficiency level students only for the cognitive subscale ($\chi2(3) = 12.938$, p = .005) as can be seen in Table 3.

**Table 3. CQ of Language Learners at Different Proficiency Level.**

|  | Proficiency level | N | Mean Rank | χ2 | P |
|---|---|---|---|---|---|
| Metacognitive | Elementary | 155 | 135.05 | | |
| | Pre-intermediate | 66 | 156.70 | | |
| | Intermediate | 33 | 155.71 | | |
| | Upper-intermediate | 35 | 156.89 | 4.792 | .188 |
| Cognitive | Elementary | 155 | 132.01 | | |
| | Pre-intermediate | 66 | 153.14 | | |
| | Intermediate | 33 | 145.98 | | |
| | Upper-intermediate | 35 | 186.24 | 12.938 | .005* |
| Motivational | Elementary | 155 | 138.40 | | |
| | Pre-intermediate | 66 | 150.82 | | |
| | Intermediate | 33 | 149.74 | | |
| | Upper-intermediate | 35 | 158.77 | 2.353 | .502 |
| Behavioural | Elementary | 155 | 138.99 | | |
| | Pre-intermediate | 66 | 147.53 | | |
| | Intermediate | 33 | 165.11 | | |
| | Upper-intermediate | 35 | 147.89 | 2.832 | .418 |

There was a significant difference between elementary and upper-intermediate students (U = 1732, p =.001). Furthermore, there was a significant difference in cognitive subscale scores between intermediate and upper-intermediate students (U = 397.5, p =.027), as shown in Table 4.

**Table 4. Cognitive CQ of Language Learners in Different Proficiency Level.**

|  | Proficiency level | N | Mean Rank | Sum of Ranks | Mann-Whitney U | P |
|---|---|---|---|---|---|---|
| Cognitive CQ | Elementary | 155 | 106.09 | 16444.50 | | |
| | Pre-intermediate | 66 | 122.52 | 8086.50 | 4354.5 | .080 |
| | Pre-intermediate | 66 | 50.90 | 3359.50 | | |
| | Intermediate | 33 | 48.20 | 1590.50 | 1029.5 | .658 |
| | Intermediate | 33 | 29.05 | 958.50 | | |
| | Upper-intermediate | 35 | 39.64 | 1387.50 | 397.5 | .027* |
| | Elementary | 155 | 89.17 | 13822.00 | | |
| | Upper-intermediate | 35 | 123.51 | 4323.00 | 1732 | .001* |

**The Perceived Strengths and Weaknesses in Intercultural Communication**

Concerning the language learners' perceived strengths in intercultural communication, the analysis displayed diverse motivational CQ components in Table 5. The EFL learners introduced such personal traits as curiosity, friendliness, self-confidence, respect, open-mindedness, empathy, and tolerance. They also mentioned a lack of prejudices, understanding, and enjoyment of cultural contact, humanism, and sincerity, which supported the quantitative findings regarding high motivational CQ. Participant 51, for instance, emphasized motivational CQ with the words empathy, respect, and objectivity in the excerpt below. Other participants also indicated their enthusiasm and delight in interacting with various cultures.

> *Since my empathy threshold is high, I can adapt to their culture and related growth styles or other situations readily, understand them and evaluate the subjects according to the environment in which they grew up. I do not judge them, as someone who understands how to respect others. I try to be objective (P51).*

> *I think I am a person who enjoys innovation, so I enjoy learning about a different culture and making friends from a different culture (P69).*

> *I think that being curious and open to differences contributes to me (P190).*

> *I am open to innovation, development, and learning. I would love to communicate with different cultures. Even though it is difficult, I try to learn without giving up because I am enthusiastic (P209).*

Furthermore, many students thought they were competent at adapting to new situations or social contexts thanks to their communication skills. They trusted their body language when interacting with individuals from other societies. These revelations also hinted that they had a high behavioural CQ, which is strongly connected to individuals' ability to use and adjust verbal and non-verbal behaviours to adapt to the sociocultural context. For instance, Participant 173 and Participant 243 explained their ability to accommodate themselves to different social contexts. In addition, Participant 37 emphasized nonverbal abilities in the excerpts, while Participant 136 mentioned verbal behaviours.

> *I can get used to a culture that I am not very familiar with within a short time, and I can adjust my movements accordingly. I can have a healthy intercultural interaction because I like to be in different cultures by not entirely breaking away from my own culture (P173).*

> *I do not have difficulty mixing with them, and I do not get stressed. I can get along right away. My ability to express myself is powerful. The more I talk to them or stay together, the easier it will be for me (P245).*

> *I can benefit from gestures, facial expressions, and body when I don't think I can convey myself well enough (P37).*

> *I think my communication and speaking skills and my attitude towards people are my strengths (P136).*

The frequency of codes for cognitive and metacognitive dimensions was low compared to motivational and behavioural aspects, which was also compatible with the learners' moderate level of cognitive CQ revealed in the quantitative analysis. Participant 39 provided evidence for metacognitive CQ.

> *I believe knowing the culture is half the way, but the essential part is the adaptation and application phase after transferring it. I filter all the new information I get from different cultures and make it a part of my life. I think this makes me a successful person in intercultural communication (P39).*

Another category exposed in the open-ended data was language proficiency, yet only a few students mentioned these as strengths, as can be reviewed in Table 5.

**Table 5. Learners' Strengths in Intercultural Communication.**

| Categories | Sample Codes | *F* |
|---|---|---|
| Metacognitive | planning and research before cultural interaction | 8 |
| | awareness & use of cultural knowledge | 7 |
| | checking accuracy of knowledge & adjustment of mental models | 5 |
| Cognitive | knowledge of cultures in general | 22 |
| | knowledge of history | 3 |
| | knowledge of religion | 3 |
| | knowledge of values of home culture | 2 |
| | knowledge of lifestyles | 2 |
| | knowledge of art and music | 2 |
| | knowledge of geography | 2 |
| | knowledge of politics | 2 |
| | knowledge of economic systems | 1 |
| | knowledge of sociocultural structures | 1 |
| Motivational | enjoyment-interest-enthusiasm to learn other cultures | 33 |
| | self-confidence | 21 |
| | friendliness | 20 |
| | open-mindedness | 17 |
| | empathy | 16 |
| | respecting others/cultures/cultural differences | 16 |
| | being understanding | 14 |
| | tolerance | 13 |
| | enjoying contacting with people from other cultures | 12 |
| | curiosity (about other cultures) | 11 |
| | not having prejudices & judgment | 9 |
| | sincerity | 9 |
| | love of humankind/humanism | 7 |
| Behavioural | communication/verbal skills | 70 |
| | adapting to environment/other cultures | 55 |
| | use of non-verbal communication(jests, mimics) | 28 |
| Language proficiency | listening comprehension | 4 |
| | Vocabulary | 2 |
| | Grammar | 1 |
| | Pronunciation | 1 |
| Total | | 419 |

As can be observed in Table 6, the most significant flaw in intercultural communication was a lack of language fluency. The explanation for this could be related to the majority of the participants' profiles. During the study, the bulk of the students were learning English at the elementary level. As a result, they probably did not feel confident in their language aptitude. Numerous students expressed their limited language use in general, but some specifically mentioned language abilities and components, as shown in the excerpts below.

> *Learning a language is very difficult for me. I find it very difficult and feel embarrassed, especially when speaking. Because of this, my communication is poor (P209).*

> *I can pause while speaking. My vocabulary is not yet sufficient. I get stuck while making sentences (P222).*

> *I understand their language, but I cannot speak it. I am not understood because I mispronounce the words (P73).*

**Table 6. Learners' Weaknesses in Intercultural Communication.**

| Categories | Sample Codes | *F* |
|---|---|---|
| Cognitive | lack of knowledge of other cultures (i.e., economy, politics, social life, art, history. | 43 |
|  | lack of knowledge of home culture | 1 |
| Motivational | shyness | 28 |
|  | excitement/stress/fear/anxiety | 21 |
|  | lack of self-confidence | 13 |
|  | prejudice/judgment | 7 |
|  | lack of open-mindedness | 3 |
|  | aggressiveness | 2 |
|  | racist attitudes | 2 |
|  | lack of interest in other cultures | 2 |
|  | lack of empathy for other cultures | 1 |
| Behavioural | adapting to environment/new culture | 10 |
|  | having difficulty in starting/keeping a conversation | 8 |
|  | not knowing how to behave in interaction with foreigners | 3 |
|  | not using jests and mimics very well | 3 |
| Limited language proficiency | limited language proficiency | 48 |
|  | speaking/ communication in English | 48 |
|  | grammar | 22 |
|  | vocabulary/ idioms/jokes/jargon | 18 |
|  | pronunciation/accent | 11 |
|  | listening comprehension | 5 |
|  | writing | 2 |
| Lack of intercultural contact | lack of face-to-face interaction with foreigners | 7 |
|  | lack of overseas experience | 4 |
|  | lack of speaking practice in primary/high school | 2 |
| Total |  | 314 |

Another salient weakness was about the emotional aspect of CQ, albeit the frequency of codes was not nearly as high as in the strengths indicated earlier. Learners mainly referred to such feelings as shyness, excitement, anxiety, fear, and lack of self-confidence during interaction with culturally different people. However, it could be deduced that experience of such feelings mainly resulted from learners' difficulty in language use and poor cultural knowledge, as substantiated below.

> *I get excited when I am communicating with people from different cultures because I always wonder whether I am pronouncing this word correctly or if s/he understands what I mean (P258).*

> *I am shy when I have difficulties with language or when I am not understood (P161).*

> *Lack of self-confidence that I have enough knowledge (P79).*

> *Impatience, shyness and over-excitement (P171).*

A majority of the students also referred to the components relevant to cognitive CQ. Students had a dearth of cultural knowledge, and they were ignorant of the lifestyles, politics, and history of other societies.

> *To know a language is to know about a culture. When you start to learn the language, you will inevitably begin to understand the structure of thought from the daily language use of society. I still have some shortcomings in this regard. Considering the geography, I live in and the field I want to work in, at least for now, I can say that*

*my main weaknesses are my lack of knowledge about the lifestyles of societies that I am unfamiliar with and that I do not have a social life in (P260).*

To sum up, students expressed their strengths in intercultural communication in accordance with their personality traits, social and adaptation skills, motivation, and non-verbal strategies, which were in line with the quantitative findings. On the other hand, they did not feel confident in their English language proficiency, especially speaking skills and knowledge of other societies.

## Discussion

The purpose of this study was to determine the CQ of EFL students and some factors that may influence their CQ. Additionally, it explored learners' strengths and weaknesses in intercultural communication. The results displayed that participant EFL learners' overall CQ level and other sub-dimensions (i.e., metacognitive CQ, motivational CQ, and behavioural CQ) were high, while cognitive CQ was moderate. These findings were similar to Konate's (2018) study with foreign students in Turkey, which discovered weaker cognitive CQ values than the motivational, behavioural, and metacognitive values.

Regarding the effect of gender on the EFL learners' CQ, the results revealed no significant difference between the CQ of males and females, similar to previous studies (Ghonsooly & Golparvar, 2013; Kaur & Pany, 2018; Khodadady & Ghahari, 2011; Ozdemir, 2019). Similarly, this study substantiated that having overseas experience did not create a significant difference in their CQ. This finding was nearly compatible with Khodadady and Ghahari's (2011) study with university students in Iran but contradictory to some other studies in the Turkish context (Gökten & Emil, 2019; Köse, 2016; Ozaslan, 2017; Sahin et al., 2014). Therefore, the results of this particular study might allude that having been abroad does not necessarily result in enthusiasm for contact with diverse cultures or a more tolerant approach to different cultures. It is also acknowledged in the previous research that even study abroad experiences might not entirely contribute to the development of intercultural skills or the process of being intercultural citizens (Baker & Fang, 2020; Jackson, 2012; Lambert Snodgrass et al., 2021). Thus, as suggested by many scholars, study abroad programs should be endorsed with intercultural training where hands-on activities are tapped (Jackson, 2015; Porto, 2019; Lambert Snodgrass et al., 2021). Furthermore, the purpose of stay, the length of time spent abroad, and the number of countries visited might have a critical role in the higher level of CQ as revealed in Crowne's (2008) study in the US context. Indeed, the experiences of learners in study abroad programs or on their touristic visits are unique. Therefore, the challenges and affordances in each case could vary, which needs more in-depth investigation. To conclude, the present study indicated no significant difference in learners' CQ based on their overseas experience. On the other hand, the previous international experience might help better function in a culturally diverse context (Gebregergis et al., 2019) and provide unique settings to enhance CQ (Fang et al., 2018). Being among different national cultures could at least contribute to being acquainted with the norms (Crowne, 2008), perceptions, practices, and products of that culture. Thus, further investigation endorsed by in-depth qualitative analysis is needed.

When the CQ of the EFL learners at different levels was compared, there was no significant difference in the overall CQ. However, there was a big difference between elementary and upper-intermediate students and intermediate and upper-intermediate students only for cognitive CQ. The implication was that those at a higher level had more knowledge about other cultures. The reason might be related to more access to culture-related texts or more in-depth class discussions on intercultural issues. In elementary level classes, textbooks present simplified and cognitively less challenging spoken and written texts. They rarely cover cultural themes due to their mental complexity and intricate language. On the other hand, higher-level

students might be exposed to more intercultural themes in the texts and in-class discussions. Therefore, the critical analysis and reflection on the textbooks might incite instructors to adapt some in-class materials for lower-level students as well. Previous research also found a significant difference among students from different proficiency levels. Kahraman (2016) found a critical effect of language proficiency on the learners' overall CQ. Ghonsooly & Golparvar's (2013) study in Iran demonstrated a positive correlation between the CQ scores of the EFL learners and their IELTS writing scores. In addition, Ghonsooly et al. (2013) also indicated that the higher the CQ level of the Iranian EFL learners, the higher their listening scores were. Consequently, it is possible to conclude that as students' language proficiency levels increase, their CQ may also increase. However, in various contexts closer scrutiny is required to unravel the salient and equivocal reasons for such disparities.

Qualitative data also consolidated the findings of the CQ scale regarding high motivational and behavioural CQ and moderate cognitive CQ. The EFL learners primarily reported their strengths in the motivational aspect. They expressed their willingness to learn about other cultures and communicate with culturally and socially different people. Personal traits such as friendliness, open-mindedness, empathy, and tolerance are also reported as strengths in intercultural communication. Therefore, the present study endorsed the previous research on the positive relationship between personality and CQ in one respect (Ang et al., 2016). Moreover, the EFL learners were confident in their communication and adjustment skills. They believed they could adapt to new cultures and contexts. Besides, they could adjust their verbal and non-verbal behaviours based on intercultural communication. Alahdadi and Ghanizadeh (2017) also found that adaptability was a predictor of CQ. Ang et al. (2020) also support that sociocultural adaptation is one of the major outcomes of CQ and it encapsulates the adjustment to foreign culture and intercultural interaction, which is related to getting on well with individuals from another culture. In this research, participants primarily referred to interactional adjustment. Ang et al. (2007) also reported that higher motivational and behavioural CQ leads to better interactional adjustment.

On the other hand, the EFL learners did not consider their knowledge of other cultures and societies adequate when they were asked about their weaknesses in intercultural communication. They expressed their deficit knowledge about unfamiliar cultures in general. Thus, it seems that the participant EFL learners need more exposure to culture-general and context-specific knowledge. Therefore, language learners might be assigned some presentation tasks about the perspectives, practices, and products of numerous cultures via online interactive tools in EFL classrooms. Instructors could bring some realia into the classroom to demonstrate the artefacts of various cultures. Textbooks feature the transmission of cultural knowledge (Gedik Bal, 2020b). Therefore, material writers could adapt them to involve more cultural and non-stereotypical information. Some in-class tasks, such as reconnoitring cultural diversity in local areas and assessing classroom materials by scrutinizing cultural representations to raise cultural awareness (Fang & Baker, 2021), could also benefit. Campus magazines might also incorporate some written reflections on students' intercultural experiences (Gebregergis et al., 2019). Furthermore, Lin and Shen's (2020) study of Mainland Chinese, Hong Kong locals, and international students proved the higher impact of informal intercultural contact on students' CQ compared to formal one. Thus, internationalizing the campus with extra-curricular activities (Gedik Bal, 2020a; Gebregergis et al., 2019; Fang & Baker, 2021; Lin & Shen, 2020) might promote intercultural engagement and allow learners to acquire new information about unfamiliar cultures.

Regarding the other weaknesses of the EFL learners, limited English proficiency was the most frequently mentioned problem in intercultural communication. The participant EFL learners embraced the idea that to be interculturally competent, they should also be apt at English. This finding is similar to one of the themes revealed in Baker and Fang's (2020) study of international

university students in China and the UK. The development of intercultural citizenship is closely associated with the development of English proficiency (Baker & Fang, 2020). Similarly, Gedik Bal and Savas (2020) also revealed that to be an interculturally competent learner, English language proficiency is essential according to EFL teachers. Therefore, for successful intercultural communication, behavioural CQ and a good command of language are epochal. Language proficiency and the cultural quotient of learners can be improved simultaneously with some bilateral university projects, as in Porto's (2019) study of Argentine students. Porto (2019) explored how such intercultural citizenship projects in the foreign language classroom contribute to language learning, especially noticing grammar, vocabulary development, meaning negotiation, and metalinguistic awareness (p. 30).

The EFL learners' feelings of anxiety, excitement, fear, and lack of self-confidence were other perceived weaknesses in intercultural communication. Unfamiliarity with the interlocutor or uncertainty could be the reason for anxiety during intercultural interaction, and such uncertainty might lead to some other affective barriers like apprehensiveness and uneasiness (Neuliep, 2012). For instance, Participant 282 said, *'I cannot know what to do when I encounter an unusual behaviour. I get too nervous.'* On the other hand, most of the students' explanations indicated that those feelings mainly arose due to a dearth of cultural knowledge and restricted language proficiency. To exemplify, Participant 258 stated, *'I get excited when I am communicating with people from a different culture because I always wonder whether I am pronouncing this word correctly.'* Previous research also demonstrated that the language barrier is a partial reason for anxiety in intercultural communication (Spencer-Rodgers & McGovern, 2002, p.610). According to Gudykunst's (2005) Anxiety and Uncertainty Management Theory, effective intercultural communication requires management of anxiety and uncertainty. Thus, to avoid anxiety and other negative feelings that might impede intercultural communication, language learners should be equipped with both cultural knowledge and linguistic competence as discussed in the previous paragraphs. Language competency is a core element of intercultural communication for legitimate membership in global communities. However, this should not necessarily entail language learners acquiring a native-like proficiency but a level where they can be effective language users, handling unexpected breakdowns in communication. Therefore, learners might be informed about the 'Global Englishes' concept, and be encouraged to be second language users rather than set high expectations of being like native speakers. This can alleviate the fear of making grammatical or pronunciation mistakes, anxiety, and dread during intercultural interactions.

## Conclusion

This study aimed to identify the CQ level of EFL learners at an EMI university and unravel their strengths and weaknesses in intercultural communication. The findings demonstrated high values for students' metacognitive, motivational, and behavioural CQ, though the learners' cognitive CQ was moderate. The EFL learners' written responses revealed their self-confidence in social, communicative, and adjustment skills, apart from their weaknesses like low language proficiency, limited cultural knowledge, and affective problems.

In view of these results, the present research extended the body of literature about the CQ of the EFL learners in preparatory programs at EMI universities. Moreover, it also exposed some barriers to effective intercultural communication as learners explained their weaknesses. In light of such possible barriers, stakeholders at universities might take precautions. The barriers that need urgent attention are reported to be restricted linguistic competence and a dearth of cultural knowledge. Therefore, this study proposes the need for affordances that allow students to develop both context-specific cultural knowledge and language skills in order to achieve a high CQ and effective intercultural communication. Exchange programs among universities and informal gatherings where learners interact with socially and culturally different peers

might help (Gebregergis et al., 2019). Additionally, international internship programs that intentionally incorporate intercultural tasks might be another significant contribution to effective intercultural communication (Lambert Snodgrass et al., 2021). In particular, the curriculum model 'Live-Learn-Work' suggested by Lambert Snodgrass et al. (2023) could be resourceful for bigger projects. In educational settings where such opportunities are scarce, stakeholders can benefit from telecollaboration projects (e.g., Porto, 2019). Thus, students might have experiential activities to observe, experience, and reflect on other cultural frameworks. Furthermore, language instructors, curriculum, and materials developers could reconsider their classroom activities and materials. They might assign projects that learners engage in intercultural issues (Gedik Bal, 2020a), besides including more thought-provoking and challenging tasks for their learners during the lessons.

Regarding the limitations, the data were not distributed homogeneously across gender, overseas experience, and proficiency level. Therefore, non-parametric tests were used in this particular study. As a result, the quantitative findings based on independent variables should be interpreted cautiously considering this limitation. With more homogenous groups, the data might reveal slightly different findings. As a result, closer examination is needed to test these variables with more evenly distributed groups in diversified contexts. Qualitative data were gathered via only a survey, so interviews with the language learners and observations might offer a more in-depth picture of the EFL learners' CQ.

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## To cite this article:

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