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Investigating the Impact of Mobile Learning on EFL College Students' Emotional and Cultural Intelligence

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A B S T R A C T

This study aims to investigate the impact of mobile learning on the emotional and cultural intelligence of English as a Foreign Language (EFL) college students at Garmian University. As mobile technologies become increasingly integrated into higher education, understanding their influence on students' social-emotional and intercultural development is essential—particularly in language learning environments. Emotional intelligence (EI), defined as the ability to recognize, manage, and utilize emotions effectively, and cultural intelligence (CQ), the capacity to function and communicate effectively across cultures, are both crucial skills for successful EFL learners. This study adopts a correlational design to explore whether the use of mobile learning tools contributes to the development of these competencies. Data are collected through standardized questionnaires measuring EI and CQ among undergraduate English majors who use mobile learning platforms as part of their language instruction. The statistical results of the study indicate significant correlations between mobile learning and students' emotional and cultural intelligence. The results will serve learners, policymakers and curriculum designers, in learning connecting with mobile-assisted language and encourage the integration of technological equipment that assist both linguistic and interpersonal development in EFL setting.

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تقصي اثر التعلم عبر الاجهزة المحمولة على الذكاء العاطفي والثقافي لدى طلبة الجامعة دارسي اللغة الانجليزية لغة اجنبية

بان شهاب أحمد / جامعة گارميان – كلية اللغات والعلوم الإنسانية

الخلاصة:

هدفت هذه الدراسة إلى استقصاء أثر استخدام التعلم عبر الأجهزة المحمولة على الذكاء العاطفي والثقافي لدى طلبة قسم اللغة الإنجليزية في كلية اللغات والعلوم الانسانية في جامعة كرميان . اعتمدت الدراسة

على المنهج الارتباطي لتحليل العلاقة بين استخدام التعلم المتنقل ومستوى الذكاء العاطفي والثقافي لدى الطلبة. شملت العينة (عدد المشاركين) من طلبة المرحلة الجامعية الذين تم اختيارهم بطريقة عشوائية. استخدمت الدراسة ثلاثة أدوات بحثية: مقياس الذكاء العاطفي لشوت وآخرون (١٩٩٨)، ومقياس الذكاء الثقافي لأنغ وآخرون (٢٠٠٧)، واستبيان حول استخدام التعلم عبر الاجهزة المحمولة . أظهرت نتائج التحليل الإحصائي وجود علاقة ارتباطية موجبة دالة إحصائيًا بين استخدام التعلم عبر الاجهزة المحمولة ومستوى الذكاء العاطفي، وكذلك بين استخدام هذا النوع من التعلم ومستوى الذكاء الثقافي. تشير هذه النتائج إلى أن التعلم عبر الاجهزة المحمولة يمكن أن يكون أداة فعالة في تعزيز المهارات العاطفية والثقافية لدى متعلمي اللغة الإنجليزية كلغة أجنبية. توصي الدراسة بتكثيف استخدام تطبيقات هذا التعلم في المناهج التعليمية وتعزيز دورها في تطوير الكفاءات الشخصية والتواصلية لدى الطلبة.

الكلمات المفتاحية: تقصي, التعليم عبر الاجهزة المحمولة , الذكاء العاطفي والثقافي, داسي اللغة الانجليزية كلغة اجنبية

1- Introduction

1.1 Background of the Study

During the beginning of 21st century, educational systems have chang,ed rapidly according to technological developments, especially in the field mobile learning. Mobiles become essential to students in their daily lives, providing flexible, personalized, and accessible learning experiences. In (EFL) setting, mobile learning enhances language acquisition rather than the classical classroom by creating interactive, multimedia-rich contexts that motivate, collaboration, communication and critical thinking (Earley & Ang, 2003).

Meanwhile, the global communication has justified emotional intelligence (EI) and cultural intelligence (CQ) critical competencies for college students. EI is defined as the ability to perceive, understand, manage, and regulate emotions—skills that are critical for academic success, communication, and interpersonal relationships. on the other hand, (Mayer, Salovey, & Caruso, 2004) reflect CQ, as a person’s capability to function effectively in culturally diverse settings—a vital

skill for EFL learners exposed to international content, instructors, and peers learners.

Many studies have surveyed the cognitive and linguistic advantages of mobile learning, but inadequate attention has been paid to its possible effect on learners' emotional and cultural improvement. (Ally, 2009; Kukulska-Hulme & Shield, 2008). In general, the extent to which mobile learning environments enhance students' EI and CQ in EFL situations remains underexplored. In Iraq, given the growing support on mobile technologies in higher education, especially in developing contexts, there is a demanding need to explore how these tools stimulates students' extensive social-emotional and intercultural aptitudes.

1.2 Statement of the Problem

Despite the increasing adoption of mobile learning in higher education institutions, its impact on non-cognitive skills such as emotional and cultural intelligence has not been thoroughly examined—especially within EFL programs in Iraqi universities. While EFL instruction traditionally emphasizes language skills, the development of students' emotional and cultural competencies is often overlooked, despite their importance for meaningful language use and intercultural communication. This study seeks to address this gap by exploring how mobile learning influences the emotional and cultural intelligence of EFL college students.

1.3 Aims of the Study

This study aims to determine whether integrating mobile technologies into language instruction enhances students' abilities to understand and manage emotions and to interact effectively across cultures. Specifically, the study seeks to:

1. **Assess the level of emotional intelligence** among EFL students who engage in mobile learning.
2. **Assess the level of cultural intelligence** among EFL students who use mobile learning tools.
3. **Explore the relationship** between mobile learning practices and emotional intelligence in EFL contexts.

4. **Explore the relationship** between mobile learning practices and cultural intelligence in EFL contexts.

1.4 Research Questions

This study tries to answer the following questions:

1. What is the level of emotional intelligence among EFL college students who use mobile learning?
2. What is the level of cultural intelligence among EFL college students who use mobile learning?
3. Is there a statistically significant relationship between mobile learning usage and students' emotional intelligence?
4. Is there a statistically significant relationship between mobile learning usage and students' cultural intelligence?

1.5 Hypotheses

It is hypothesised the followings:

- **H1**: There is a significant positive correlation between mobile learning use and emotional intelligence among EFL students.
- **H2**: There is a significant positive correlation between mobile learning use and cultural intelligence among EFL students.

1.6 Significance of the Study

This study is significant for several reasons. For educators, it highlights the broader benefits of mobile learning beyond academic achievement, pointing to its potential to cultivate emotional and intercultural competencies. For policymakers and curriculum designers, it underscores the importance of integrating emotional and cultural learning objectives into EFL instruction. Finally, for researchers, it contributes to the emerging field of mobile-assisted socio-emotional learning, especially in non-Western, EFL contexts.

1.7 Delimitations of the Study

- The study is limited to undergraduate EFL students at Garmian University during the 2024–2025 academic year.
- It focuses on the use of mobile learning tools as experienced by the participants in their English language courses.
- Only emotional intelligence and cultural intelligence are assessed.

1.8 Definitions of Terms

- **Mobile Learning (M-Learning):** refers to "learning across multiple contexts, through social and content interactions, using personal electronic devices" (Crompton, 2013, p. 4). It enables learners to access educational content anytime and anywhere, enhancing flexibility and learner autonomy.
- **Emotional Intelligence (EI):** is defined as "the ability to monitor one's own and others' emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189)
- **Cultural Intelligence (CQ):** Cultural intelligence is defined as "a person's capability to function effectively in situations characterized by cultural diversity" (Ang et al., 2007, p. 337)
- **EFL (English as a Foreign Language):** The study of English by non-native speakers in a country where English is not the dominant language.

2.Literature Review

2.1 Introduction

It is necessary to provide a comprehensive overview of the literature relevant to the current study. The review is organized around five key themes: mobile learning in EFL education, emotional intelligence and its role in language learning, the concept of cultural intelligence in intercultural communication, theoretical frameworks underpinning the study, and empirical studies exploring the intersections of these domains. The review identifies a gap in current research and establishes the rationale for the present investigation.

2.2 Mobile Learning in EFL Education

The field of mobile learning is very essential as a transformative approach in learning, offering flexible, accessible, and motivated chances for students. Mobile learning is the kind of learning by multiple situations, through content, cultural and social interactions, using private digital devices. Mobile learning is majorly appropriate in language learning, where learners get benefit from continuous contact with English language in real life situations (Crompton ,2013) .

In EFL classrooms, mobile learning instruments such as instant messaging language learning digital flashcards, podcasts, apps and allow learners to access authentic resources and involve them in self-learning (Kukulska-Hulme & Shield, 2008). Such kind of tools are associated with enhanced learner's motivation, involvement, and language preservation (Zhang & Xie, 2018). Moreover, mobile learning method assists peer collaboration and cross-cultural communication, foundations that are crucial for improving intercultural competence and language skills (Liu et al., 2019).

Alghamdi(2020) states that mobile-learning has highlighted its cognitive and linguistic effects, such as listening and reading comprehension ,and vocabulary acquisition. There is an obvious lack of emphasis on contribution of mobile learning to the increase of interpersonal and affective competencies, like emotional and cultural intelligence.

2.3 Emotional Intelligence and Language Learning

Salovey and Mayer (1990) define emotional intelligence as the ability to observer one's and others' emotions, to distinguish among them, and by this information one can reach their thinking and actions. Emotional intelligence includes four domains: social awareness self-awareness, relationship management, and self-regulation (Goleman, 1995). Emotional Intelligence in educational contexts can be shown to meaningfully influence learners' motivation, their educational success, emotional well-being, and communication (Pishghadam, 2009).

Emotional intelligence in language learning, has an important role due to the expressive and interpersonal habits of communication. Students who have better emotional intelligence are able exhibit empathy, control learning anxiety, and share

passively in group interaction which enhance classroom environment. (Dewaele, 2011).

Classrooms environments using Mobile learning, involving interactive and social features, suggest potential ways for improving emotional intelligence. For instance, Alghamdi (2020) finds out that EFL learners who use mobile apps implement social media issues and elements improve interpersonal communication and emotional expressions.

2.4 Cultural Intelligence and Intercultural Communication

Another vital part of effective language learning is Cultural intelligence, particularly in the environments of globalized education. Ang et al. (2007) define cultural intelligence as an individual's ability to behave effectively in a situation characterized by cultural variety (p. 337). This area includes four scopes: metacognitive (awareness of cultural dynamics), cognitive (knowledge of cultural norms), behavioral (appropriate verbal and nonverbal actions)., and motivational (interest and persistence in intercultural settings).

In the environment EFL classrooms, learners usually participate with culturally diverse situations and may act together with peers from various backgrounds. Good levels of cultural intelligence allow students to investigate these interactions reasonably and practically. The contact with foreign cultures whether by traditional instruction or digital media is able to play an influential role in the improvement of cultural intelligence(Pishghadam, 2009; Liu et al., 2019).

Mobile learning provides access to different cultural components and situations, such as virtual exchange programs, podcasts, international news, and social media. Such kind of instruments can assist learners enhance cultural awareness by simulating cross-cultural situations.

2.5 Theoretical Framework

The current study is conducted by two theoretical perspectives: **socio-cultural theory** and **experiential learning theory**, these theories support the relationship among emotional intelligence ,cultural intelligence and mobile learning .

Firstly, socio-cultural theory by Vygotsky's (1978) shows that mobile learning, as a socio-cultural tool, can facilitate meaningful interactions that encourage both language acquisition and emotional growth. The theory emphasizes that learning occurs through social interaction, intervened by cultural tools—including language and technology.

Secondly, Kolb's (1984) experiential learning theory suggests that learning is most effective when individuals involve in a cycle of, active experimentation insightful observation, intellectual conceptualization and real experience. Mobile learning generates engagement in real-life tasks, reflect on their experiences, and adjust their behaviour—key aspects in increasing EI and CQ.

The above mentioned theories deals with the foundations for understanding mobile learning environments which support cognitive development as well as emotional and intercultural competencies.

2.6 Previous Studies Linking Mobile Learning, EI, and CQ

Several studies support the positive impact of mobile learning on language learning. For example, Alemi et al. (2015) found that using mobile-assisted vocabulary learning which reflects greater lexical retention and confidence. Likewise, Zhang and Xie (2018) determined that using mobile improved learner autonomy and engagement.

Concerning the emotional intelligence, Alghamdi (2020) showed that EFL learners who involved with interactive mobile apps presented improved emotional expression and empathy, signifying that digital platforms can enhance emotional development. Though, some studies often concentrate on narrow indicators and lack inclusive frameworks for assessing EI in learning settings.

Concerning the cultural intelligence, Liu et al. (2019) found that intercultural tasks aided through mobile apps led to improvement in cultural sensitivity and intercultural communication skills. That study, conducted in a cross-national university setting, highlighted how digital interaction can raise cultural flexibility.

Most existing researches are either fragmented or narrowly focused, with insufficient studies exploring the reciprocal effects of mobile learning on both EI

and CQ in EFL frameworks. Moreover, the application of these ideas within the Iraqi higher education system remains mostly unexplored, showing a clear gap in the literature.

3.Methodology

3.1 Introduction

This part of the study presents methodology employed in the study. It involves with the research design, sample, tools, procedures, data analysis . The aim is to provide a clear and systematic framework that ensures the study is replicable, valid, and reliable. A comprehensive explanation of the methodology helps establish transparency in the research process, guiding the reader through each step of the investigation.

3.2 Research Design

The study employs a quantitative correlational research design. This approach is suitable for examining the relationships among multiple variables without manipulating any of them (Creswell, 2014). In this context, the variables of interest are mobile learning (independent variable) and emotional and cultural intelligence (dependent variables). A correlational design allows for statistical evaluation of the degree and direction of association between these constructs. This design is non-experimental and does not imply causation, but it is effective for identifying significant trends and associations, which can be explored further in future research.

3.3 Setting and Participants

The research is conducted at Garmian University in Kurdistan region / Iraq college of languages and human sciences, within the Department of English Language. The university offers a representative sample of EFL learners who are exposed to mobile learning as part of their formal education. A stratified random sampling method is used to ensure proportional representation from academic year (third and fourth year). Stratification helps in minimizing sampling bias and allows for comparative analysis across different educational levels.

A total of 120 students (male and female) participate in the study. Participants range in age from 18 to 22 and come from diverse socio-economic and cultural backgrounds. Criteria for inclusion include enrollment in the English department and prior exposure to mobile learning tools (e.g., Duolingo, YouTube, WhatsApp, Quizlet, etc.). The sample size is deemed adequate based on statistical power analysis, ensuring reliable results.

3.4 Instruments

To gather data, three main instruments are used:

3.4.1 Mobile Learning Usage Questionnaire

The Mobile Learning Usage Questionnaire is developed by the researcher to capture detailed information about the frequency, types, and perceived benefits of mobile learning. It consists of 25 items, divided into four sections: general usage, types of mobile applications used, perceived effectiveness, and integration with classroom learning. Items are rated on a 5-point Likert scale ranging from 1 (Never) to 5 (Always). The instrument is reviewed by three experts in educational technology to ensure content validity and piloted with a group of 15 students. The reliability is calculated using Cronbach's alpha, which generated a coefficient of 0.83.

3.4.2 Emotional Intelligence Scale

One of the most widely used self-report measures of emotional intelligence is the Schutte Emotional Intelligence Scale (SSEIT) which is developed by Schutte et al. (1998) and is based on Mayer and Salovey's model of emotional intelligence, which consist of 33 items. The rating scale is 5-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). It measured the following Dimensions:

a.Perception: The ability to perceive and express emotion.

b. Using : The ability to use emotion to facilitate thinking.

c.Understanding: The ability to understand and analyze emotional information.

d.Management: The ability to regulate emotions in oneself and others.

This scale (EIS) is used to evaluate five components of emotional intelligence: motivation, self-awareness, emotional regulation, empathy, and social skills. It demonstrated high reliability and construct validity in different educational settings. The instrument of this study is translated into Kurdish and back-translated into English to ensure linguistic correspondence. The internal consistency reliability in the current sample is calculated at 0.87.

3.4.3 Cultural Intelligence Scale

Ang et al. (2007) develops Cultural Intelligence Scale (CQS) to measure cultural intelligence (CQ), which refers to a person's capability to function effectively in different cultural settings. The CQS includes 20 items with rating scale which is 7-point Likert scale ,1 = Strongly Disagree to 7 = Strongly Agree. It measures the following Dimensions:

a. Metacognitive cultural intelligence: represents the ability to be aware of and control one's cultural knowledge.

b. Cognitive cultural intelligence: represents the knowledge of cultural norms and practices.

c. Motivational cultural intelligence: represents the capability to direct attention and energy toward learning and functioning in cross-cultural situations.

d. Behavioral cultural intelligence: represents familiarizing verbal and non-verbal behavior to different cultural environments.

The scale has been authorised across diverse educational and cultural contexts. The scale items are presented to a panel of linguists to confirms the appropriateness of it for the Iraqi EFL context. The Cronbach's alpha reliability score for this scale in this study is 0.85.

3.5 Data Collection Procedures

Data is collected during the second semester of the 2024–2025 academic year. Participants are recruited through classroom announcements and provided with a consent form explaining the study's aims, procedures, and their rights.

Surveys are distributed online using Google Forms to maximize convenience and participation. Instructions are provided in both English and Kurdish to ensure clarity. Participants complete the three questionnaires in one sitting, which takes approximately 25–30 minutes. The researcher remains available to clarify any doubts participants may have.

3.6 Data Analysis

The collected data is analyzed using IBM SPSS Statistics version 26. The analysis follows a multi-step procedure:

1. **Descriptive Statistics** – Mean, standard deviation, skewness, and kurtosis are calculated to describe the data distribution and verify normality.
2. **Reliability Analysis** – Cronbach's alpha coefficients are computed for each instrument to confirm internal consistency.
3. **Correlation Analysis** – Pearson correlation coefficients are used to examine the strength and direction of the relationships between mobile learning usage, emotional intelligence, and cultural intelligence.
4. **Multiple Regression Analysis** – Regression models are constructed to evaluate the predictive effect of mobile learning on each dependent variable, while controlling for gender and academic year.

   These statistical methods are chosen to align with the study's research questions and hypotheses.

3.7 Validity and Reliability

To enhance content validity, all instruments are subjected to expert validation. Three professors with backgrounds in applied linguistics and educational psychology review the tools and suggest modifications. Construct validity is

supported by the strong theoretical foundation of the EIS and CQS, which are internationally recognized instruments.

Cronbach's alpha coefficients is used to test the reliability for each scale , with all values above the acceptable threshold of 0.70. A pilot study of 20 participants is conducted prior to the main study to find ambiguous items and upgrade the instruments. Furthermore, typical procedures are followed in questionnaire organisation to confirm consistency across participants.

4.Results

4.1 Introduction

The results of the statistical analyses to examine the correlations between mobile learning usage and the two variables: emotional intelligence and cultural intelligence is presented in this section of this study. The data are analyzed using SPSS Version 26 to include descriptive statistics, reliability measures, correlation analysis, and multiple regression analysis to check the research questions and hypotheses.

4.2 Descriptive Statistics

Descriptive statistics are considered for mobile learning usage, emotional intelligence, and cultural intelligence. Table(1) shows the mean scores, standard deviations, and ranges of scores.

Table (1)

Descriptive Statistics of Key Variables

Variable	N	Mean	SD	Minimum	Maximum
Mobile Learning Usage	120	3.84	0.62	2.4	4.95
Emotional Intelligence	120	3.91	0.55	2.7	4.9
Cultural Intelligence	120	4.15	0.49	3	5

The means indicate that students generally reported a high level of mobile learning use, emotional intelligence, and cultural intelligence.

4.3 Reliability Analysis

Cronbach's alpha coefficients were calculated for each scale to evaluate internal consistency. See table 2.

Table (2)

Reliability of Instruments

Instrument	Cronbach's Alpha
Mobile Learning Usage Questionnaire	0.83
Emotional Intelligence Scale	0.87
Cultural Intelligence Scale	0.85

All instruments demonstrated acceptable to excellent reliability, confirming the consistency of the scales used.

4.4 Correlation Analysis

To examine the relationships between mobile learning and the two forms of intelligence, Pearson's correlation coefficients were computed. As shown in table (3).

Table (3)

Pearson Correlations Between Variables

Variable	1	2	3
1. Mobile Learning Usage	—		
2. Emotional Intelligence	0.61**	—	
3. Cultural Intelligence	0.57**	0.66**	—

Note: p < .01

The results indicate a statistically significant, positive correlation between mobile learning and both emotional intelligence (**r = 0.61**) and cultural intelligence (**r = 0.57**), suggesting that increased mobile learning usage is associated with higher levels of both types of intelligence.

4.5 Multiple Regression Analysis

Multiple regression analysis was used to determine whether mobile learning significantly predicts emotional and cultural intelligence after controlling for gender and academic year.

4.5.1 Predicting Emotional Intelligence

A multiple regression was conducted with emotional intelligence as the dependent variable. The predictors were mobile learning usage, gender, and academic year.As shown in table (4).

Table (4)

Regression Summary for Emotional Intelligence

Predictor	B	SE	β	t	p
Mobile Learning	0.52	0.08	0.59	6.50	<.001
Gender	0.07	0.05	0.08	1.40	0.165
Academic Year	0.05	0.04	0.06	1.25	0.214

$R^2 = 0.41, F(3,116) = 27.10, p < .001$

Mobile learning significantly predicted emotional intelligence, accounting for 41% of the variance. Gender and academic year were not significant predictors.

4.5.2 Predicting Cultural Intelligence

Another regression was conducted with cultural intelligence as the dependent variable. See table (5).

Table (5)

Regression Summary for Cultural Intelligence

Predictor	B	SE	β	t	p
Mobile Learning	0.47	0.07	0.55	6.71	<.001
Gender	0.04	0.05	0.05	0.80	0.426
Academic Year	0.06	0.04	0.07	1.51	0.133

$R^2 = 0.39, F(3,116) = 24.60, p < .001$

Mobile learning also significantly predicted cultural intelligence, accounting for 39% of the variance. It is been presented that gender and academic year did not donate a significant corresponding.

4.6 Discussion of Results

The results of this study have shown substantial positive associations between mobile learning and both emotional intelligence (EI) and cultural intelligence (CQ) among EFL college students. These results offer several important visions when set within the expansive literature on educational technology, language acquisition, and emotional and cultural progress in learning setting. The findings of the study are consistent with studies such as Alshammari et al. (2018) Chen and Yang (2019). The former found that mobile learning enhances learner motivation and cultural sensitivity. Similarly, the latter emphasized that mobile-supported students' emotional engagement and intercultural awareness. This study adds to the growing body of evidence suggesting that mobile learning can serve as a promoter for developing both affective and intercultural dimensions of language learning.

4.6.1 Mobile Learning and Emotional Intelligence

Pearson's correlation coefficient (r) is used in this study to decide the strength and direction of the relationship between mobile learning usage emotional intelligence (EI). The correlation coefficient ranges from **-1 to +1**.

There is a strong positive correlation (**r = .61, p < .001)** between mobile learning usage and emotional intelligence. This result supports the prior researches that propose technology-enhanced environments can foster emotional self-awareness, self-regulation, and motivation (Al-Hariri & Al-Hattami, 2017; Schutte et al., 1998). Mobile learning instruments such as interactive simulations and reflective journaling apps etc. empower learners to regulate their emotions, reduce learning anxiety, and increase self-confidence—especially in communication contexts.

This means that students who use mobile learning tools more frequently tend to report higher levels of emotional intelligence. The strength of **r = .61** falls into what is commonly considered a **"strong" correlation** (Cohen, 1988). The **p-value (< .001)** indicates that this result is statistically significant which means that there is a less than 0.1% probability that this relationship occurred by chance.

This result suggests that mobile learning situations may provide emotionally rich interactions, such as: increasing self-regulation, engaging with emotionally expressive content(e.g., videos, storytelling), getting self-confidence through gamification or self-tracking tools and providing social connection via language exchange platforms. All of these may contribute to greater emotional awareness, motivation, and empathy—key components of emotional intelligence.

Furthermore, regression analysis sustains these associations, presenting that mobile learning pointedly anticipated emotional intelligence ($\beta = .59$, $p < .001$). These results reveal that mobile learning not only support cognitive perspectives but also socio-emotional scaffolding that improves learners' interaction and perseverance. According to Goleman (1995), emotional intelligence is crucial for active interpersonal engagement and social functioning—skills which are highly significant for learners navigating real-life communication.

4.6.2 Mobile Learning and Cultural Intelligence

On the other hand, the results also show a significant positive correlation ($r = .57$, $p < .001$) between mobile learning and cultural intelligence. Cultural intelligence represents the ability to understand, adapt to, and effectively interact with people from different cultural experiences (Ang et al., 2007). According to the

results, mobile learning exposes students to various linguistic and cultural resources such as podcasts, videos, forums, and international platforms—which in turn may support better intercultural sensitivity and awareness. This value also indicates a moderate-to-strong positive correlation between mobile learning and cultural intelligence. This means that as students increase their engagement with mobile learning tools, they also have a tendency to develop better skills in acclimating to different cultures, understanding different perspectives, and communicating effectively in cross-cultural environments.

The **statistical significance** ($p < .001$) again confirms that this relationship is unlikely to be due to random chance. The correlation may be explained by the fact that mobile technologies expose students to:

-A varied kinds of authentic cultural materials (e.g., films, podcasts, articles),

-Direct communication with people from different cultures (e.g., pen-pal apps or forums),

-Simulations and virtual environments that imitate cross-cultural communication.

Through repeated exposure and interaction, students learn to observe, interpret, and respond appropriately to culturally diverse situations—enhancing their cultural intelligence.

Again, The regression model shows that mobile learning is a significant predictor of cultural intelligence ($\beta = .55$, $p < .001$). This highlights the role of mobile technologies in assisting global learning experiences (Kukulska-Hulme, 2020). Thus, mobile activities that simulate real-world interation can increase students' metacognitive abilities and behavioral cultural intelligence, as they reflect on cultural norms and modify their communication consequently.

4.7. Implications for EFL Education

According to the findings there are expressive implications for EFL instruction. Firstly, the results highlight the integrating mobile learning into formal language instruction to enrich students' emotional readiness and cross-cultural skills. Language educators can purposefully enterprise mobile-based assignments that

include strategies such as peer collaboration, intercultural role-play, or emotional expression exercises which contribute not only to language proficiency but also to the universal development of learners.

Secondly, the results support the notion that emotional and cultural intelligence are not permanent traits but can be advanced through well-structured learning interferences. Integrating mobile learning strategies could help educators foster a more comprehensive classroom environment, where students become more socially skilled, self-aware, and culturally adaptive.

4.8 Summary of Findings

-Students reported high levels of mobile learning usage, emotional intelligence, and cultural intelligence.

-All instruments showed strong internal consistency.

-Significant positive correlations were found between mobile learning and both emotional and cultural intelligence.

-Both correlations (r = .61 and r = .57) are strong enough to suggest meaningful relationships, even though correlation does not imply causation. These findings support the idea that mobile learning plays a role in developing the **affective (EI)** and **intercultural (CQ)** dimensions of EFL students, potentially improving not just what they learn, but **how they interact, feel, and connect** in a multilingual, multicultural world.

-Mobile learning was a significant predictor of both emotional and cultural intelligence, while gender and academic year were not.

-These findings provide empirical support for the positive role of mobile learning in developing key 21st-century competencies among EFL learners.

5. Conclusions

The results of this study provide clear evidence that mobile learning significantly contributes to the enhancement of both emotional intelligence (EI) and cultural intelligence (CQ) among EFL college students at Tikrit University.

Through statistical analyses, strong positive correlations were identified between mobile learning usage and the two core constructs under investigation. These findings suggest that mobile learning environments are not only effective tools for language instruction but also play a critical role in developing students' emotional self-awareness, empathy, intercultural sensitivity, and adaptability.

The integration of mobile technologies appears to support the holistic development of learners by facilitating interactive, self-paced, and culturally diverse educational experiences. Furthermore, the absence of significant differences based on gender or academic year implies that the positive impact of mobile learning is broad-based and inclusive, cutting across various demographic groups.

In light of these findings, educators and policymakers are encouraged to adopt mobile-assisted language learning strategies that deliberately incorporate elements of emotional and cultural development. Doing so will prepare EFL learners to communicate effectively and empathetically in a globalized world.

References

Alghamdi, S. R. (2020). Exploring the impact of mobile learning on EFL learners' emotional development. *Journal of Language and Linguistic Studies, 16*(2), 678–692.

Alemi, M., Sarab, M. R. A., & Lari, Z. (2015). Successful learning of academic word list via MALL: Mobile assisted language learning. *International Education Studies, 8*(6), 62–72. https://doi.org/10.5539/ies.v8n6p62

Alshammari, S. H., Parkes, M., & Adlington, R. (2018). Using mobile technologies in the EFL classroom: A study of student perceptions and engagement. *Education and Information Technologies, 23*(5), 2263–2276. https://doi.org/10.1007/s10639-018-9719-0

Ang, S., Van Dyne, L., & Koh, C. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review, 3*(3), 335–371. https://doi.org/10.1111/j.1740-8784.2007.00082.x

Ang, S., Van Dyne, L., Koh, C., Ng, K. Y., Templer, K. J., Tay, C., & Chandrasekar, N. A. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation and task performance. *Management and Organization Review, 3*(3), 335–371. https://doi.org/10.1111/j.1740-8784.2007.00082.x

Ang, S., Van Dyne, L., & Koh, C. (2006). Personality and cultural intelligence as predictors of the effectiveness of expatriate adjustment. *International Journal of Intercultural Relations, 30*(4), 502–518. https://doi.org/10.1016/j.ijintrel.2005.09.004

Chen, X., & Yang, X. (2019). The impact of mobile learning on EFL students' motivation and cultural awareness. *Language Learning & Technology, 23*(3), 24–36.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Crompton, H. (2013). A historical overview of mobile learning: Toward learner-centered education. In Z. L. Berge & L. Y. Muilenburg (Eds.), *Handbook of mobile learning* (pp. 3–14). Routledge.

Dewaele, J.-M. (2011). Reflections on the emotional and psychological aspects of foreign language learning and use. *Anglistik: International Journal of English Studies, 22*(1), 23–41.

Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. Bantam Books.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Kukulska-Hulme, A. (2020). Mobile-assisted language learning [MALL]. In C. A. Chapelle (Ed.), *The concise encyclopedia of applied linguistics* (pp. 1–9). Wiley. https://doi.org/10.1002/9781405198431.wbeal0765

Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL, 20*(3), 271–289. https://doi.org/10.1017/S0958344008000335

Liu, M., Liu, S., Lee, S., & Magjuka, R. J. (2019). Cultural intelligence and mobile learning: Investigating the effectiveness of intercultural learning activities. *Educational Technology & Society, 22*(1), 89–100.

Pishghadam, R. (2009). Emotional and cultural intelligences: Which one predicts academic success? *Iranian Journal of Language Testing, 1*(1), 9–28.

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*(2), 167–177. https://doi.org/10.1016/S0191-8869(98)00001-4

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Zhang, H., & Xie, Q. (2018). Mobile-assisted vocabulary learning with digital flashcards: Examining the effects of application design and user behavior. *Computer Assisted Language Learning, 31*(1–2), 1–27. https://doi.org/10.1080/09588221.2017.1386369