

The Relationship among Shenzhen Junior High School EFL Students' Motivation, Language Anxiety and Language Learning Outcomes in the MALL Context

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Abstract: The use of mobile-assisted language learning (MALL) has been promoted for some time to improve the language learning results of pupils. However, research into the effects of MALL on students' motivation, language anxiety, and real accomplishment is scarce. This study investigates Grade 7 and Grade 9 students in a Shenzhen state-run junior high school about their language learning motivation, anxiety, and the relationship between their language learning outcomes in the MALL context. Results showed that young adolescents' motivation to study English was influenced favourably by their parents but adversely by the pressure of the senior high school entrance exam; students who are facing the high school entrance examination suffer more from anxiety and have lower motivation than those in the first year of junior high school. This research calls for practicable policies to reduce the exam burdens for junior high school students in Shenzhen and change current pedagogical teaching methods for English teachers to motivate their students in EFL classes.

Keywords: Mobile-Assisted Language Learning (MALL), Language Learning Motivation, Language Anxiety, Junior High School Students, English as a Foreign Language (EFL)

1. Introduction

The proliferation of digital tools has enabled the use of mobile phones for studying languages beyond English. Researchers and teachers can now assess mobile devices' effectiveness in enhancing language acquisition due to their widespread adoption (Önal et al., 2022). MALL allows students to learn foreign languages through mobile applications and internet-connected devices. The increasing presence of mobile devices in learners' daily lives and language sessions underscores the need for research on their application in various teaching contexts (Walker & White, 2013).

The process and outcome of second language learning are significantly influenced by internal and external factors. Recent research has explored learners' social and psychological contexts in second language acquisition, but empirical evidence on their effects remains limited. Among psychological factors, L2 motivation and anxiety have been extensively studied, yet their relationship to L2 success is still unclear. This study examines the links between motivation, anxiety, and English achievements among 79 junior secondary EFL students in a state-run junior high school in Shenzhen, China.

Learner motivation and anxiety continuously evolve, particularly in response to the rapidly changing demands and challenges of the 21st century's advanced technological landscape. Consequently, current research on these factors across different student grades is essential for understanding their impact on English language learning. Increased awareness of how motivation and anxiety vary by grade can help educators, stakeholders, and policymakers allocate resources, design learner-centered programs, and positively influence language learning outcomes. Moreover, it provides insights into how different types of motivation and anxiety can be harnessed and adjusted to enhance English language learning at the junior high school level.

This study investigates the impact of the EK Wing app on language learning motivation and anxiety among junior high school students in Shenzhen. EK Wing, a comprehensive language learning app, aids students with pronunciation, spelling, shadow reading, dictation, and grammar, both before and after class. Typically, students use EK Wing daily after school for homework. This method, a subset of

computer-assisted language learning (CALL), is integral to English language education for Shenzhen junior high students.

This research aims to enhance English instruction in Shenzhen's junior high schools. Intrinsically motivated students are more likely to persist in learning despite difficulties (Chang, 2005). Alrabai (2014) highlights that teachers play a crucial role in alleviating students' anxiety and should be knowledgeable about research findings on student fears. This study aims to inform strategies for addressing motivation and anxiety in English classrooms, aiding learners of all levels in overcoming obstacles and reducing barriers for non-formal learners.

The research questions that will guide this research are as follows:

RQ1: How are the students' language learning motivation, both integrative and instrumental, related to their language learning outcomes in the MALL context?

RQ2: How are the students' language learning anxiety, including communication apprehension, test anxiety and fear of receiving a negative evaluation, related to their language learning outcomes in the MALL context?

RQ3: Do students' language learning motivation and language learning anxiety differ across genders and grades?

2. Literature Review

2.1 Students' language learning motivation (LLM) and language learning outcomes

Dörnyei (1998) posits that student motivation significantly influences the speed and effectiveness of second language acquisition. Motivation acts as both the initial impulse and sustaining force in the often tedious L2 learning process. Without motivation, neither an optimal curriculum nor excellent instruction can ensure success. Motivation, however, is complex and requires insights from various fields. Dörnyei (1998) describes it as a force that initiates and sustains action until the desired outcome is achieved or countered by another force. Brown (2007) defines it as the degree to which individuals make choices about their goals and the effort they invest in achieving them.

Social psychologists have begun studying what drives students to learn a second language, resulting in models like Krashen's (1981) Monitor Model and Schumann's (1986) Acculturation Model. Gardner's Socio-educational Model (1985) remains pivotal, distinguishing between integrative motivation (desire to interact with native speakers) and instrumental motivation (practical goals like career advancement). Gardner's AMBT (Attitude/Motivation Test Battery) assesses motivation through attitudes toward learning, desire to learn, and motivational intensity.

Deci's (1991) self-determination theory identifies intrinsic and extrinsic motivations. Intrinsically motivated behaviors are driven by the enjoyment and fulfillment they bring, independent of external rewards. Extrinsic motivations, in contrast, are instrumental actions performed for external benefits rather than inherent satisfaction.

Goal Theories, including Goal-setting Theory and Goal-orientation Theory, have significantly influenced motivation research. Goal-setting Theory (Locke and Latham, 1990) posits that goals consist of internal and external components, linking goal setting to achievement. Goals impact effort, strategy, and the duration of sustained achievement. Goal-orientation Theory, developed for educational settings, emphasizes that individual effectiveness heavily depends on prioritized goals (Pintrich & Schunk, 1996).

Attribution Theory stands out in student motivation by highlighting the mediating role of causal attributions, connecting accomplishments to personal history (Dörnyei, 2003). This theory focuses on personal perceptions rather than past experiences. In a classroom setting, the type of attribution impacts motivation. If students attribute failure to a lack of ability (an uncontrollable internal factor), their motivation may decline. Conversely, if they attribute failure to lack of effort (a controllable internal factor), they are more likely to be motivated to improve.

The relationship between language learning motivation (LLM) and language learning outcomes lacks consensus. Gardner (1985) viewed target language proficiency as dependent on motivation, suggesting higher motivation leads to greater success. Dörnyei and Otto's (1998) cyclic model proposed a circular relationship, where success in one objective reinforces motivation for subsequent goals.

2.2 Language anxiety and language learning outcomes

Aydin (2016) described anxiety as an exaggerated and persistent state of fear and apprehension. Horwitz et al. (1986) noted that, in linguistics and educational psychology, anxiety involves inaccurate assumptions about language learning. Gardner et al. (1985) identified various forms of anxiety: "trait anxiety" (an inherent tendency to worry), "state anxiety" (temporary fear), and "situation-related anxiety" (fear in specific contexts). Both state and situation-related anxieties are responses to specific circumstances (Peng, 2007).

Research has explored the link between language anxiety and achievement. Horwitz et al. (1986) developed the Foreign Language Classroom Anxiety Scale (FLCAS) to assess anxiety in language learning. This validated questionnaire features scenarios like giving speeches, fearing mistakes, and self-evaluation against peers. The FLCAS is widely used to measure language learning anxiety (Horwitz et al., 1986), and studies (e.g., Aida, 1994; Alrabai, 2014) have shown significant negative correlations between FLCAS scores and language grades.

Foreign language anxiety includes three aspects: "communication apprehension," linked to anticipated difficulties in information exchange (Horwitz et al., 1986); "test anxiety," a distressing emotion with psychological and physical symptoms (Zeidner, 2020); and "fear of negative evaluation" in various learning situations (Iwashita et al., 2001).

2.3 Students' motivation, language anxiety and learning outcomes in the MALL context

MALL leverages various mobile technologies to facilitate English language acquisition. It is an all-encompassing strategy for teaching essential English macro skills. Zhen and Hashim (2022) found that MALL positively impacts learners' writing, reading, listening, and speaking abilities.

Moghal et al. (2020) demonstrated that MALL in informal settings enhances local learners' motivation and efficiency in acquiring English. This research shows that MALL can increase students' enthusiasm and self-confidence, essential for their success.

Shamsi et al. (2019) examined MALL's role in helping international English learners reduce communication anxiety. The findings indicate a significant decrease in participants' anxiety levels after completing the course designed for this purpose.

3. Method

This study examines the impact of language learning motivation and anxiety on learning outcomes in MALL contexts in Shenzhen junior high schools. The research employs a questionnaire survey and semi-structured interviews with selected students.

Students have used the EK wing application throughout their junior high school years. Grade 7 students have used the MALL tool for about one semester, while Grade 9 students have been users for around 2.5 years.

The questionnaire assessing language learning motivation and anxiety was administered in December 2022, after mid-term tests and before final exams. Following the survey, selected students participated in interviews to discuss their learning behaviors and perceptions of MALL. These interviews complement quantitative data by providing insights into participants' perspectives on pedagogical issues.

3.1 Contexts and participants

The study was conducted in a state-run nine-year school in Shenzhen, China, involving students for whom English is a foreign language. Participants included 38 female and 41 male students from Grade 7 and Grade 9, yielding 79 effective questionnaires.

Post-questionnaire analysis involved selecting several students for semi-structured interviews to explore their views on the relationship between language learning motivation, anxiety, and learning outcomes.

The mid-term test assessed L2 achievement, and the researcher obtained students' official midterm English grades. These grades, out of 100, were based on performance in listening, speaking, reading, and writing subtests. Participants gave permission for their English test results to be used in the study.

3.2 Measures

In this research, we employed two distinct sets of tools.

The questionnaire investigating students' motivation and anxiety was partly selected and slightly modified from the original Gardner's (1985) Attitude-Motivation Test Battery (AMTB) and the Foreign Language Classroom Anxiety Scale (FLCAS) questionnaire created by Horwitz et al. (1986). Respondents were asked to assess various statements from strongly disagree (5), relatively agree (4), average (3), relatively disagree (2) to strongly disagree (1), with a five-point Likert scale. Since the respondents were junior high school students with varying levels of proficiency in English, the questionnaire that was given to the students was translated into Chinese.

3.3 Demographic Information

The first part (Q1 - 3) of the questionnaire delves into respondents' demographic information. The demographic information we collected from the test includes the grade participants in (Grade 7, N = 43; Grade 9, N = 36), gender (38 females and 41 males), and their recent test scores.

3.3.1 Students' language learning motivation

This part (Q4 - 24) was a modified version of Gardner's (1985) Attitude-Motivation Test Battery (AMTB) which contains 21 items that reflect respondents' motivation (instrument and integrative) towards the English language. Respectively, it earned a Cronbach's alpha of 0.95 and 0.91. All the originals were written in English, but the researcher had them translated into Chinese.

3.3.2 Students' language learning anxiety

This section (Q25-34) analyzes students' English learning anxiety (communication apprehension, test anxiety, and fear of negative evaluation) in December 2022 using the FLCAS questionnaire by Horwitz et al. (1986). The FLCAS includes 10 items, each describing a classroom scenario that might cause anxiety for foreign language learners. Adaptations were made for Chinese and English teaching contexts. The Cronbach's alpha for communication apprehension, test anxiety, and fear of negative evaluation were 0.83, 0.84, and 0.89, respectively. Table 1 presents these values and sample items from the instrument.

Table 1: Cronbach's Alpha Values and Sample Items for Students' Language Learning Motivation and Anxiety

	Measure	Cronbach's alpha	Sample item
Motivation	Integrative Motivation (ITM)	0.95	"I have a strong desire to know all aspects of English."
	Instrumental Motivation (ISM)	0.91	"Studying English is important because it will be useful in getting a good job."
Anxiety	Communication Apprehension (CA)	0.83	"It frightens me when I don't understand what the teacher is saying in the foreign language."
	Test Anxiety (TA)	0.84	"I tremble when I know that I'm going to be called on in language class."
	Fear of Receiving a Negative Evaluation (FR)	0.89	"I am afraid that my language teacher is ready to correct every mistake I make."

3.4 Data collection and analysis

The researcher employed a survey and follow-up interviews to explore students' motivations for studying English. Consent forms were distributed and collected during a subsequent class meeting, and students who signed up received electronic access to the questionnaire.

The questionnaire, developed from previous studies (see Appendix I), was then distributed. Using Stata/SE 17.0, Cronbach's alpha values were calculated to validate the language learning motivation and anxiety measures. Descriptive statistical analysis, correlation analysis, and independent sample t-tests were conducted to examine the relationships between language learning motivation, anxiety, and learning

outcomes, and to identify differences between classes and genders. Hierarchical regression analysis assessed the statistical significance of the path coefficients between variables.

Follow-up interviews were conducted to supplement and clarify the questionnaire data. Each semi-structured interview lasted about 20 minutes and was recorded and transcribed in Chinese, with relevant portions translated into English for this paper (see Appendix II for example questions).

4. Results

4.1 Quantitative data findings: students' questionnaire types of Chinese students' English learning motivation

Table 2 shows that participants' language learning motivation and anxiety scores ranged from 1.43 to 3.6, indicating generally low to average responses. The standard deviations, ranging from 0.43 to 1.11, suggest that student responses were fairly consistent.

Table 2: Descriptive Statistics for Language Learning Motivation and Anxiety

Variable	Class	N	Mean	SD	Min.	Max.
Integrative Motivation (ITM)	1	36	1.48	0.47	1	2.57
	2	43	1.81	0.58	1	3.21
Instrumental Motivation (ISM)	1	36	1.43	0.43	1	2.29
	2	43	1.75	0.68	1	3.14
Communication Apprehension (CA)	1	36	3.11	1.03	1	5
	2	43	3.02	1.03	1	5
Test Anxiety (TA)	1	36	3.40	1.05	1	5
	2	43	3.24	1.10	1	1
Fear of Receiving a Negative Evaluation (FR)	1	36	3.6	1.11	1	5
	2	43	3.38	1.14	1	5

Note. 1= class in Grade 9, 2 = class in Grade 7

Pearson correlations of the variables were also examined (Table 3). ITM showed positive and significant correlations to all other variables, including ISM ($r = 0.72$, $p < 0.001$), CA ($r = -0.29$, $p < 0.001$), TA ($r = -0.33$, $p < 0.001$), FR ($r = 0.30$, $p < 0.001$), and TEST ($r = -0.48$, $p < 0.001$). ISM, meanwhile, showed positive correlations with CA ($r = -0.17$, $p < 0.001$), TA ($r = -0.17$, $p < 0.001$), FR ($r = -0.23$, $p < 0.001$), and TEST ($r = -0.36$, $p < 0.001$). Also, the sampled students' CA, TA, and FR were both positively and significantly correlated with their TEST ($r = 0.27$, $r = 0.22$, and $r = 0.23$, respectively; both $p < 0.001$).

Table 3: Correlations among ITM, ISM, CA, TA, FR, and TEST

Variable	ITM	ISM	CA	TA	FR	TEST
ITM	1					
ISM	0.72**	1				
CA	-0.29**	-0.17	1			
TA	-0.33**	-0.17	0.85**	1		
FR	-0.30**	-0.23*	0.83**	0.83**	1	
TEST	-0.48**	-0.36**	0.27*	0.22	0.23*	1

Note. ITM: integrative motivation, ISM: instrumental motivation, CA: communication apprehension, TA: test anxiety, FR: fear of receiving a negative evaluation, and TEST: the test score of mid-term in 2022-2023; * $p < 0.05$; ** $p < 0.01$.

Table 4: T-test Results for ITM, ISM, CA, TA, and FR, by Class

Factors	Class 1		Class 2		T-test	p
	Mean	SD	Mean	SD		
Integrative Motivation (ITM)	1.48	0.47	1.81	0.56	2.73	0.008**
Instrumental Motivation (ISM)	1.43	0.43	1.75	0.67	2.47	0.016*
Communication Apprehension (CA)	3.11	1.03	3.02	1.03	0.646	0.520
Test Anxiety (TA)	3.40	1.05	3.24	1.10	0.484	0.687
Fear of Receiving a Negative Evaluation (FR)	3.61	1.11	3.38	1.14	0.912	0.364

Note. 1= class in Grade 9, 2 = class in Grade 7; ITM: integrative motivation, ISM: instrumental motivation, CA: communication apprehension, TA: test anxiety, FR: fear of receiving a negative evaluation; * $p < 0.05$; ** $p < 0.01$.

The T-test between the two classes showed a significant difference in students' language learning motivation. The students in Grade 7 showed a higher level of motivation, both integratively and instrumentally. However, anxiety between different grades does not show much prominence (Table 4).

T-test between the two genders showed that there is no significant difference on students' language learning motivation and anxiety between different genders (Table 5).

Table 5: T-test Results for ITM, ISM, CA, TA, and FR, by Gender

Factors	Gender 1 (N=38)		Gender 2 (N=41)		T-test	p
	Mean	SD	Mean	SD		
Integrative Motivation (ITM)	1.74	0.58	1.56	0.52	1.38	0.17
Instrumental Motivation (ISM)	1.67	0.66	1.53	0.51	1.11	0.27
Communication Apprehension (CA)	3.04	1.06	3.09	0.99	0.23	0.82
Test Anxiety (TA)	3.21	1.18	3.42	0.95	0.86	0.39
Fear of Receiving a Negative Evaluation (FR)	3.54	1.17	3.42	1.08	0.46	0.65

Note. ITM: integrative motivation, ISM: instrumental motivation, CA: communication apprehension, TA: test anxiety, FR: fear of receiving a negative evaluation; 1= male, 2 = female; *p < 0.05; **p < 0.01.

Stepwise hierarchical regression analysis was conducted to examine the predictive relationships between variables. Based on previous studies, five variables of language learning motivation and anxiety were considered as independent variables, and one variable of language learning outcomes was the dependent variable. Stepwise regression analysis tested these relationships. Table 6 shows that among the variables, only communication apprehension strongly predicts students' learning outcomes positively.

Table 6: Hierarchical regression analysis

DV	IV	Coefficient	SD	T	p	R
Learning outcomes	ITM	-1.66	6.17	-0.27	0.789	0.26
	ISM	-18.62	6.82	-2.73	0.008**	
	CA	6.83	5.05	1.35	0.180	
	TA	-3.53	4.97	-0.71	0.480	
	FR	-0.25	4.46	-0.06	0.955	

Note. N = 79, ITM: integrative motivation, ISM: instrumental motivation, CA: communication apprehension, TA: test anxiety, FR: fear of receiving a negative evaluation.

*p < 0.05; **p < 0.01.

4.2 The qualitative data results

Interview data supported the results in Table 2, indicating that most students showed weak interest and motivation in learning English, viewing it as a burden. Notably, students from both junior high school grades cited parental pressure as a primary motivation. Parents significantly influence their children's English studies in China. Most respondents acknowledged their parents' impact on their English development.

Students reported that parents create a nurturing learning environment, but some felt pressured not to disappoint their families by failing to get into a top-tier senior high school. Grade 9 students primarily studied English to excel in standardized tests for senior high school admission, reflecting parental emphasis on exam success over general academic achievement in English. This pressure led to significant stress, especially for ninth graders, who found English increasingly challenging.

More than one-third of students reported anxiety due to fear of poor grades and speaking in front of the class. These anxieties were strongly linked to their English proficiency and test results, affecting their willingness to communicate and overall language learning anxiety. Self-reported English skills were closely connected to reluctance to communicate and fear of learning.

Regarding MALL, students had positive attitudes towards the EK wing, expressing less anxiety and higher motivation when using the tool. They welcomed its more frequent application in their studies.

5. Discussion

This mixed-methods analysis explored the connection between motivation, language anxiety, and language learning outcomes among EFL students in a junior high school in Shenzhen. Apart from the motivation and anxiety factors and verifying their causes, the quantitative survey and subsequent qualitative interviews provided solid evidence for the findings. The data from this study suggests that seventh graders are more motivated and less anxious about learning English than ninth graders. Findings from student interviews are used to discuss the positive effect parents can have on their children's motivation to learn a second language and the negative effect that pressure to perform well on the high school entrance exam can have on the motivation of ninth graders to learn a second language.

Notably, the interviews and questionnaires all pointed to a negative pattern in Chinese high school English classrooms. The findings from the follow-up student interviews showed that high school students' L2 learning was negatively impacted by their preparation for senior high school admission exams. This is similar to what has been found in prior research on Chinese university students (Liu, 2011).

Students in Shenzhen are required to take entrance exams to senior high schools and universities. It is worth remembering, though, that in Shenzhen, it is possible that the high school admission exam is tougher than the college entrance exam. More than half of students who start out in junior high do not continue their education at a public senior high school. As a result, junior high students are under intense pressure to perform well on standardized tests required for senior high school admission. This study used a mixed-methods approach to demonstrate the extent to which this stress level demotivates middle school children in Shenzhen.

6. Conclusion

This mixed-methods investigation aimed to examine motivation and anxiety among seventh and ninth graders in Shenzhen. The study analyzed two motivational and three anxiety subcomponents. Junior high students reported low motivation and significant anxiety regarding English learning. Parental influence positively impacted students' motivation, while stress from senior high school admission exams had a negative effect. The study suggests reducing exam pressure on junior high students to enhance English learning outcomes.

Effective speech communication and shared learning experiences can reduce anxiety and increase participation in English classes, thereby improving language learning. Teachers can explore new strategies to foster students' interest and language use, boosting their confidence and competence. Encouraging authentic language practice, particularly for Chinese EFL students with limited exposure, is crucial. Creating safe environments for public speaking can enhance students' confidence in using English.

Implications for language planners, policymakers, teachers, and curriculum designers include integrating findings into English education planning in China, revising policies to promote EFL over exam-centric approaches, and adapting teaching methods to support student motivation and reduce anxiety. Future research should expand sample sizes across different school levels and explore effective use of MALL tools to optimize English language learning efficiency.

References

- [1] Aida, Y. (1994). Examination of Horwitz, Horwitz, and Cope's construct of foreign language anxiety: The case of students of Japanese. *The Modern Language Journal*, 78(2), 155-168.
- [2] Alrabai, F. (2014). A model of foreign language anxiety in the Saudi EFL context. *English Language Teaching*, 7(7), 82. <https://doi.org/10.5539/elt.v7n7p82>
- [3] Aydin, S. (2016). A qualitative research on foreign language teaching anxiety. *The Qualitative Report*. <https://doi.org/10.46743/2160-3715/2016.2232>
- [4] Brown, H. D., & Lee, H. (2015). *Teaching by principles: An interactive approach to language pedagogy*. Pearson.
- [5] Chang, M.-M. (2005). Applying self-regulated learning strategies in a web-based instruction: An investigation of motivation perception. *Computer Assisted Language Learning*, 18, 217-230.
- [6] Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26(3-4), 325-346. <https://doi.org/10.1080/00461520.1991.9653137>

- [7] Dörnyei, Z. (1998). *Motivation in second and foreign language learning*. *Language Teaching*, 31(3), 117-135. <https://doi.org/10.1017/S026144480001315X>
- [8] Dörnyei, Z. (2003). *Attitudes, orientations, and motivations in language learning: Advances in theory, research, and applications: Attitudes, orientations, and motivations*. *Language Learning*, 53(S1), 3-32. <https://doi.org/10.1111/1467-9922.53222>
- [9] Gardner, R. C., Lalonde, R. N., & Moorcroft, R. (1985). *The role of attitudes and motivation in second language learning: Correlational and experimental considerations*. *Language Learning*, 35(2), 207-227. <https://doi.org/10.1111/j.1467-1770.1985.tb01025.x>
- [10] Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). *Foreign language classroom anxiety*. *The Modern Language Journal*, 70(2), 125-132. <https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- [11] Iwashita, N., McNamara, T., & Elder, C. (2001). *Can we predict task difficulty in an oral proficiency test? Exploring the potential of an information-processing approach to task design*. *Language Learning*, 51(3), 401-436. <https://doi.org/10.1111/0023-8333.00160>
- [12] Liu, J.-H. (2011). *A study on learning motivation of high school students*. *Overseas English*, 12, 47-48.
- [13] Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting & task performance*. Prentice-Hall, Inc.
- [14] Önal, N., Çevik, K. K., & Şenol, V. (2022). *The effect of SOS Table learning environment on mobile learning tools acceptance, motivation and mobile learning attitude in English language learning*. *Interactive Learning Environments*, 30(5), 834-847. <https://doi.org/10.1080/10494820.2019.1690529>
- [15] Peng, J. E. (2007). *Willingness to communicate in an L2 and integrative motivation among college students in an intensive English language program in China*. *University of Sydney papers in TESOL*, 2(1), 33-59.
- [16] Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications*. Prentice Hall.
- [17] Shagufta Moghal, Muhamamd Mooneeb Ali, Zoobia Asad, Dr. Muhammad Asif, & Amina Shahid. (2020). *Utilizing mobile-assisted language learning (MALL) for teaching English to non-formal learners in Pakistan*. *Journal of Arts & Social Sciences*, 7(2), 70-81. [https://doi.org/10.46662/jass-vol7-iss2-2020\(70-81\)](https://doi.org/10.46662/jass-vol7-iss2-2020(70-81))
- [18] Shamsi, A. F., Altaha, S., & Gilanlioglu, I. (2019). *The Role of M-Learning in Decreasing Speaking Anxiety for EFL Learners*. *Online Submission*, 2(1), 276-282.
- [19] Walker, A., & White, G. (2013). *Technology enhanced language learning: Connective theory and practice*.
- [20] Zeidner, M. (1998). *Test anxiety: The state of the art*.
- [21] Zhen, L. S., & Hashim, H. (2022). *The usage of MALL in learners' readiness to speak English*. *Sustainability*, 14(23), 16227. <https://doi.org/10.3390/su14231622>