

ATTITUDE TOWARDS COMPUTER-ASSISTED LANGUAGE LEARNING: DO GENDER, AGE AND EDUCATIONAL LEVEL MATTER?

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Abstract

The purpose of the present cross-cultural study was to explore the relationships of second and foreign language teachers' and students' attitudes towards Computer-Assisted Language Learning (CALL) in terms of their gender, age group, and educational level in two countries, Spain and Iran. The study was based on a sample of 318 language teachers and 307 language students in Iran and Spain. Data collection was carried out through two online questionnaires (108 items) for both teachers and students. To make a sound decision, the researchers decided to utilize the Delphi methodology, which was originally established in order to diagnose the beneficiary of technologies. In the data analysis phase, descriptive, t test and one-way ANOVA analyses were performed to find the answers of the research questions. The findings of the study revealed that there is no difference between the attitudes of Iranian and Spanish towards CALL in terms of gender, age and educational matter. Finally, pedagogical implications and recommendations for further research are presented.

Keywords: Computer-Assisted Language Learning (CALL); cross-cultural study; attitudes; gender; age; educational level

1. Introduction

The emergence of new technologies may lead to more effective teaching and learning in different fields of study. Teachers and learners of either a second or a foreign language are also aware of the current waves of technologies in their field. Hence, they should enhance their “Computer-Assisted Language Learning (CALL) literacy” (Tafazoli, 2014, 2017; Tafazoli & Gómez, 2017) to meet the criteria of 21st century educational needs. Lasagabaster and Sierra (2003) note that students are excessively engaged in using CALL, and teachers make gargantuan attempts to integrate CALL into their syllabus and curriculum. Therefore, forethoughtful teachers and students promptly recognize the urgency of improving their “CALL literacy”.

A considerable number of studies focus on the applications of CALL in language classrooms (e.g. Chapelle, 2001; Gruba, 2006; Stockwell, 2012). Nevertheless, it should be taken into account that language teaching and learning processes could be moderated or controlled by individual differences (Ellis, 2006). In this light, one of the aspects of individual differences is attitude. Attitude is a conglomerate of cognitive, behavioral and affective components (Fishbein & Ajzen, 1975; Kiesler, Collins & Miller, 1969; Mantle-Bromley, 1995; Mantle-Bromley & Miller, 1991) which will be explained in next section. Regarding CALL, however, both teachers and students' attitudes towards innovative teaching methodologies and technologies is a must (Tafazoli, Gómez & Huertas, 2018) as their positive or negative attitudes and perceptions may have a significant impact on the failure or success of the language teaching and learning process (Lasagabaster & Sierra, 2003).

Although many scholars address teachers' and students' attitudes towards CALL (e.g. Bebell, O' Conner, O' Dwyer & Russell, 2003; Lam, 2000; Smith, 2003; Warschauer, 2003), several demographic features such as gender, age, educational level, etc. may also influence an individual's attitude. Whether the use of CALL may benefit every individual language teacher and learner, the relationship between attitude and genders, age groups and educational levels is vague. Moreover, scrutinizing the literature shows that most of the prior studies on attitudes towards CALL are explored within a particular culture and context, however, a cross-cultural dimension in such studies has been missed. A cross-cultural study is an effective way to explore the psychological traits (Matsumoto & Yoo, 2006) which can provide educational improvement (Stigler & Hiebert, 1999).

The present cross-cultural study aims to explore the relationships of second and foreign language teachers' and students' attitudes towards CALL in terms of their gender, age group, and educational level in two countries, Spain and Iran. The researchers seek to find these relationships from a developed country (Spain) and a developing country (Iran) in order to find out to what extent the findings of a research on a developed country can be utilized in a developing country and vice versa. In other words, in Western and European countries, extensive research examined the effectiveness of CALL but the results cannot be extrapolated to the Iranian culture based on their age, gender and/or educational levels.

Therefore, our study seeks to answer the following research questions:

RQ1: Is there any significant difference among the Spanish and Iranian language students' attitudes towards the use of CALL in terms of gender?

RQ2: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of gender?

RQ3: Is there any significant difference among the Spanish and Iranian language students' attitudes towards the use of CALL in terms of their age?

RQ4: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of their age?

RQ5: Is there any significant difference among the Spanish and Iranian language students' attitudes towards the use of CALL in terms of their educational level?

RQ6: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of their educational level?

2. Conceptual framework: The multicomponent model of attitude

In psychology, attitude is a way in which individuals express their favor or disfavor towards anything. The degree of favor or disfavor could range from extremely positive to extremely negative. Defining attitude is argumentative among scholars. As Eagly and Chaiken (1998) state, "attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p. 1). However, in Wenden's (1998) perspective, attitude is a set of "learned motivations, valued beliefs, evaluations, what one believes is acceptable, or responses oriented towards approaching or avoiding" (p. 52). The multicomponent model of attitude proposed attitude based on three main domains: (1) cognitive, (2) behavioral, and (3) affective domain (Fishbein & Ajzen, 1975; Kiesler, Collins & Miller, 1969; Mantle-Bromley, 1995; Mantle-Bromley & Miller, 1991).

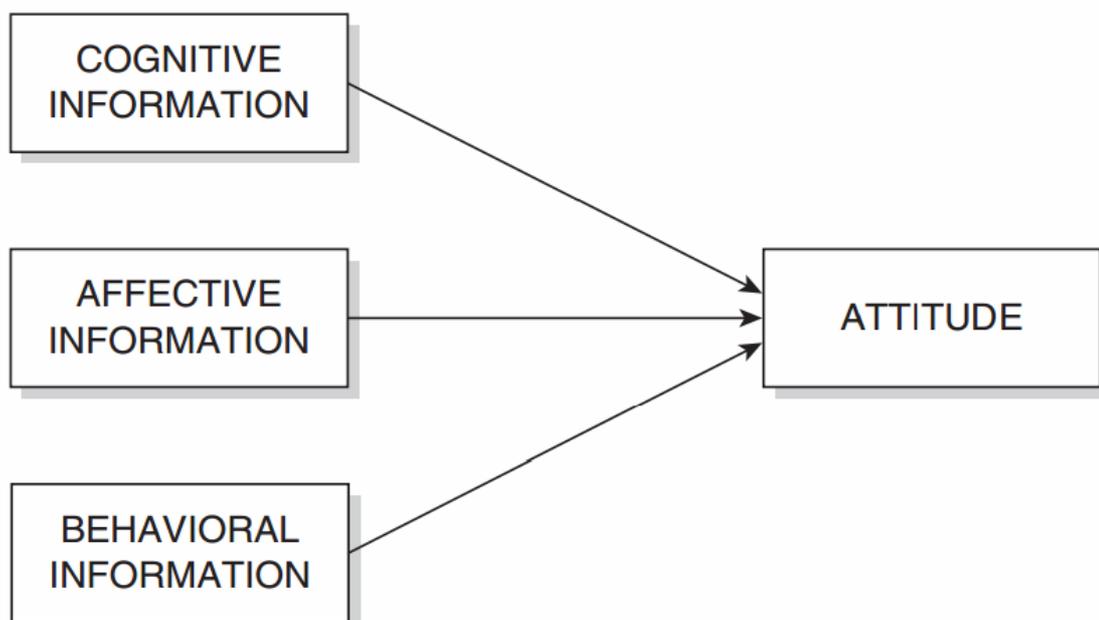


Figure 1. The Multicomponent Model of Attitude (Tafazoli, Gómez & Huertas, 2018, p. 40)

In the field of study of CALL, each domain of attitudes refers to a specific property. The cognitive component deals with the amount of knowledge a person has on a specific domain; in CALL, thus, the cognitive component relates to computer literacy (Maushak & Simonson, 2001). The second domain, the behavioral component, is an overt performance of a person towards an object. From the CALL point of view, this component refers to the experience of language teacher or learner in applying technologies in language teaching and learning. In other words, the more experienced one is in using computer, the more positive attitudes towards computers they display and vice versa (Maushak & Simonson, 2001). The third domain, the affective component, deals with an attitude object. Our feelings or emotions that are associated with an attitude object define the affective component. To put it simply, when a teacher assumed that a CALL tool (e.g. vodcast) made their teaching more effective, it deals with the affective component of attitude. Notwithstanding, all the components of the attitudes are not identical, they are interwoven, that is, they have a synergetic relation (Breckler, 1984).

3. Review of literature

In Spain, Pinto-Llorented, Sánchez-Gómez, García-Peñalvo and Casillas-Martín (2017) quantitatively scrutinized the students' attitudes and perceptions towards asynchronous technological tools (podcast, vodcast, online tests, online glossary and forums). 358 students (male: 23.2%, female: 76.8%) ranged in age from 20 to 58 were recruited to participate in this study. The researchers applied questionnaires as a pre-test (36 items) during the first week of the semester and post-test (39 items) during the last week of the semester included open/closed, yes/no and Likert Scale items which were posted on the Virtual Learning Environment (VLE). The findings confirmed the positive attitudes and perceptions of students towards applied asynchronous technological tools. Pinto-Llorented et al. (2017) enumerated the following reasons for positive perceptions of students: 1) students' greater autonomy with technology, 2) providing a natural environment and authentic materials via VLE, 3) opportunity to have collaborative and independent learning through e-activities, 4) anytime and anywhere nature of the mobile learning devices, 5) motivational and interesting features of e-activities, and 6) continuous assessment and self-assessment properties of e-activities which give students necessary feedback based on their weaknesses.

In a cross-cultural study, Tafazoli, Gómeza and Huertas (2018) compared the attitudes of Iranian and non-Iranian English language students' attitudes towards CALL. The participants of this study were 415 students (Iranian: 34.7%, non-Iranian: 65.3%) from 61 countries around the world. The researchers used a convergent mixed methods design, and

applied an online 44-item web-based questionnaire as an instrument for data collection. The questionnaire consisted of five sections. In a quantitative phase, it included: background information, computer literacy, students' attitudes towards CAL (computer-assisted learning) and students' attitudes towards CALL; and in a qualitative phase, there are two open-ended questions. The findings of the study revealed that there were not any significant differences between the attitudes of Iranian and non-Iranian English language students toward the application of CALL. These authors decided to explore their research question in every construct of the study, and after applying the non-parametric test of Mann-Whitney, the researchers found:

...significant differences between the computer literacy as well as between the attitudes of Iranian and non-Iranian English students toward CALL.... Thereafter, it could be argued that as far as computer literacy and attitudes toward CALL are concerned, statistically significant differences exist between the data drawn from Iranian and non-Iranian English students. The only construct on which Iranian and non-Iranian students did not report any significant difference was the general attitude towards CAL

(Tafazoli, Gómez & Huertas, 2018, p. 48).

In Turkey, Öz, Demirezen and Pourfeiz (2015) conducted a study in order to find the relationship between computer literacy, attitudes towards foreign language learning and CALL. The participants (N = 123) of the study were requested to respond to two instruments of the study: 1) The Attitudes towards Foreign Language Learning (AFLL) Scale (Vandewaetere & Desmet, 2009), and 2) The Attitudes towards Computer-Assisted Language Learning (ACALL) Scale (Vandewaetere & Desmet, 2009). The findings of the study, which support prior studies on attitudes towards CALL (i.e. Akbulut, 2008; Ayres, 2002; Mahfouz & Ihmeideh, 2009; Link & Marz, 2006; Öz, 2015) indicated the positive relationships between attitudes towards foreign language learning and attitudes towards CALL. As Öz, Demirezen and Pourfeiz (2015) indicated, “28% of attitudes toward[s] CALL could be predicted by attitudes toward[s] FLL” (p. 359). They concluded that attitude plays a significant role in order to improve second language learning programs and boost educational outcome.

In a global study, Lin, Warschauer and Blake (2016) explored language learners' attitudes towards a large Language Learning Social Network Sites (LLSNSs) (the focus of this study was on Livemocha) through a 23-item questionnaire. The study involved 4,174 Livemocha users as well as 20 individual case studies. The results of the study showed that the majority of the users strongly agreed (48%) and agreed (37%) that Livemocha increased their motivation and self-confidence. Furthermore, most of the users felt that communicating with

native speakers via SNSs is more comfortable than face-to-face communication. The findings revealed the general positive attitudes of language learners towards LLSNs, however, the researchers suggested more support, guidance, and well-structured activities that can lead to success. The findings of the study are in line with Warschauer (1996a, 1996b) and Young (2003), who demonstrated online environments decrease affective factors such as anxiety. However, the findings were inconsistent with Stevenson and Liu's (2010) study, which reported on the hesitation of some users to use LLSNs for making social interactions.

In another study in Turkey (Öz, 2015), the relationship between demographic factors (gender and age) and attitudes towards CALL was investigated. Among 128 undergraduate freshman students, 75% of them were female and 25% were male, and their age ranged from 18 to 22. The findings of his study revealed the fact that gender differences moderate on the students' attitudes towards CALL. However, in relation to students' perceptions of *effectiveness of CALL*, the findings indicated significant differences between genders in favor of females. On the other hand, male students' perceptions of *surplus value of CALL* were greater than females. The conclusion was that female students assumed learning through computers is more satisfactory. In addition, they believed CALL augments their language proficiency in comparison to traditional language learning. In contrast, male students thought that CALL is a beneficial extension of the conventional language learning. The findings of the study are identical to Fatemi Jahromi and Salimi (2013) but opposite to Akbulut's (2008) study, who showed no relationship between gender and attitudes towards CALL. Regarding age differences in the attitudes towards CALL, the results showed considerable differences among age groups of 18, 19, 20 and 22.

In Cyprus, Cavus (2011) conducted a study on 40 female students (43.01%) and 53 male students (56.99%) in order to find a significant difference between genders' perceptions of Mobile-learning and Learning Management System (LMS) through the use of an independent *t*-test. The findings revealed no significant difference among the students' attitudes in terms of gender category towards the integration of the new trend learning environment. The outcome of the study was consistent with Uzunboylu, Cavus and Ercag (2009) in the same country; and Wang, Wu and Wang (2009) and Yang (2012) in Taiwan. On the other hand, according to Taleb and Sohrabi (2012) in Iran and Khaddage and Knezek (2013) in Oman, female students were more positive towards M-learning rather than male students. Nonetheless, Uzunboylu and Ozdamli's (2011) study showed that male instructors had more positive attitudes towards M-learning than female ones.

In a cross-cultural study in Oman and the UAE Al-Emran, Elsherif and Shaalan (2016) investigated the attitudes of students and faculty members towards M-learning in the higher education context in terms of their age and gender. The number of participants in Oman were 225 students and 24 faculty members and in the UAE were 158 students and 30 faculty members. An independent *t*-test noticed no differences among both educators and students' attitudes towards M-learning in terms of their gender. The findings of this study was in opposite to a study conducted in Saudi Arabia by Alwraikat and Al Tokhaim (2014), in which the independent *t*-test indicated that female instructors were more positive towards M-learning than male instructors. Data analysis indicated no statistical differences among the students' attitudes between and within age groups.

The literature shows that most of the previous studies on attitudes towards CALL are explored within a context. Thus, in this study, the researchers tried to investigate second and foreign language teachers' and students' attitudes towards CALL in terms of their gender, age group, and educational level in two countries, Spain and Iran. The researchers sought to find these relationships from a developed country (Spain) and a developing country (Iran) in order to find out to what extent the findings of a research on a developed country can be utilized in a developing country and vice versa.

4. Methodology

4.1. Participants

The present study was based on a sample of 318 language teachers and 307 language students in Iran and Spain. As shown in Table 1, 50.94% of the teachers and 69.38% of the students were Iranian. Spanish teachers and students were 49.06% and 30.62% of the sample respectively. Moreover, female was the dominant gender in the sample with over half of the teacher participants (64.46 %), and over the three quarters of students (76.54); only 185 of the 625 participants of the sample were male.

Table 1. Distribution of participants based on their gender

Country	Gender	Teacher	Student
Iran	Male	69	42
	Female	93	171
	Total	162	213
Spain	Male	44	30
	Female	112	64
	Total	156	94

	Male	113	72
Total	Female	205	235
	Total	318	307

Table 2 shows that the distribution of BA, MA and PhD teachers were almost equal in the sample, although this distribution was not equal in student participants. The minority group in terms of education level was the PhDs who summed to 131 participants, while the major group was MA participants with 299.

Table 2. Distribution of participants based on their educational level

Country	Educational Level	Teacher	Student
Iran	BA	25	106
	MA	92	81
	PhD	45	26
Spain	BA	25	39
	MA	85	41
	PhD	46	14
Total	BA	50	145
	MA	177	122
	PhD	91	40

As far as age was concerned, as depicted in Table 3, the largest category of teacher participants (170 participants) fell within the age range of 36 and above. However, the category of 18 to 23 was the largest in student participants. On the other hand, the smallest groups in teacher and student participants were the category of 18 to 23 years old (2.51%) and the category of 30 to 35 years old (20.84%), respectively.

Table 3. Distribution of participants based on their age groups

Country	Age group	Teacher	Student
Iran	18-23	8	79
	24-29	30	50
	30-35	61	49
	36 and above	63	35
Spain	18-23	0	20
	24-29	15	21
	30-35	34	15
	36 and above	107	38
Total	18-23	8	99
	24-29	45	71
	30-35	95	64
	36 and above	170	73

4.2 Instrumentation

Data collection was carried out through two online questionnaires for both teachers and students. The survey in the form of a questionnaire is one of the most usual methods of data collection on attitudes and opinions in a large-scale research (Mackey & Gass, 2005). When language learners want to report on their beliefs and motivations or reactions about their language instructions, settings, activities, etc. researchers are able to use questionnaires. Phellas, Bloch and Seale (2011) mentioned some advantages of web-based (online) surveys:

...(1) Web page surveys are extremely fast. (2) No cost is involved once the set-up has been completed. (3) You can show pictures, video and play sound. (4) Web page questionnaires can be set with skip instructions. (5) Web page questionnaires can use colours, fonts and other formatting options not possible in most email surveys. (6) A significant number of people will give more honest answers to questions. (7) People give longer answers to open-ended questions. (8) Survey answers can be combined with pre-existing information you have about individuals taking a survey

(Phellas et al., 2011, p. 190).

The website which provides the platform for this online questionnaire is Google Forms (see <https://bit.ly/2Knd7tJ> for teacher tool and <https://bit.ly/2M78INg> for a student tool). The participants had access to the questionnaire via an online link. The online questionnaires comprised 108 closed- and open-item questions within four main sections and two constructs of including: 1) background information, 2) CALL literacy, and 3) participants' attitude towards CALL. The first section of the questionnaire intended to gather data about participants' background information: country, gender, age, educational level, language teaching and learning experiences, work/study place, familiarity and access to technology in the classroom. The second section aimed to investigate the CALL literacy. The third section was focused on the participants' attitude towards CALL through twenty-eight 5-point Likert-scale items, ranging from strongly disagree (1) to strongly agree (5). In the last section, ten open-ended items asked students about their experience with and attitudes towards CALL.

Table 4. Distribution of items on the questionnaires

Construct	Section I	Section II	Section III
Question type	Background information	CALL literacy	Participants' attitudes towards CALL
Total	14	56	38

4.3 Measurement analysis

To make a sound decision, the researchers decided to utilize the Delphi methodology, which was originally established in order to diagnose the beneficiary of technologies. The first draft of the questionnaire for this research was designed and emailed to 20 experts in the field. Due to the multidisciplinary nature of CALL, the researchers decided to arrange the panel of experts based on their expertise. Therefore, the panel consisted of twenty PhDs from different fields of Applied Linguistics, Computer Sciences, English Language Teaching, and Computer-Assisted Language Learning, from different parts of the world such as Iran, Spain, the USA and the UK, among others.

The data collection and analysis phase of the Delphi was guided by three issues: the discovery of opinions; the process of determining the most important issues; and managing opinions (Keeney, Hasson & McKenna, 2000). First, the researchers tried to discover the opinions to reach consensus on the content of the questionnaire. After gathering experts' opinions, data were analyzed through content analysis technique. At the end of three rounds, the researchers agreed on two parallel questionnaires.

The questionnaires contained 108 items, which measured two different constructs of CALL literacy and attitudes towards CALL. After administering this questionnaire to the teachers' sample, the researchers first checked the validity of the case processing. All the 318 cases of the sample were valid, and SPSS did not exclude the scores of any of the participants from the processing. Then, the researchers used SPSS to calculate the Cronbach's Alpha Coefficient which was .857 for 28 quantitative items of attitude towards CALL construct. This indicated that this construct enjoyed ample internal consistency. Moreover, the researchers calculated the reliability of the students' questionnaire. The internal consistency of the students' attitudes towards CALL construct enjoyed a high degree of internal consistency. The Cronbach's Alpha coefficient for this construct was .894 for 28 items.

5. Results and Discussion

RQ1: Is there any significant difference among the Spanish and Iranian language students' attitudes towards the use of CALL in terms of gender?

In order to find the answer, an independent sample of *t*-test was applied to find out if there is any statistical significant difference among Spanish and Iranian language students' attitudes towards the use of CALL in terms of gender.

Table 5. Differences among students' attitudes in terms of their gender

Attitude	Gender	N	Mean	Std.	Sig.	t	df
				Deviation			
	Male	72	100.8611	14.033467	.476	.294	305
	Female	235	100.2809	14.840097			

As depicted in Table 5, the results indicate that the mean values for both male and female students do not show any significant differences among Iranian and Spanish students' attitudes towards CALL in terms of their gender. The calculated value of t is (.294) and the significance level is ($p = 0.476$, $p > 0.05$). This could imply that both male and female students have the same attitudes towards CALL which emphasize the positive role of CALL in sexual justice in educational system of both contexts, Iran and Spain. The finding of this research question is in line with other studies such as Al-Emran, Elsherif and Shaalan (2016), Cavus (2011), Tafazoli, Gómez and Huertas (2018), Uzunboylu, Cavus and Ercag (2009), Wang, Wu and Wang (2009), and Yang (2012), however, it is in contrast to Fatemi Jahromi and Salimi (2013), Khaddage and Knezek (2013), Öz (2015), Taleb and Sohrabi (2012), and Uzunboylu and Ozdamli (2011).

RQ2: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of gender?

Another independent sample of t -test was carried out to investigate if there is any statistical significant difference among Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of gender.

Table 6. Differences among teachers' attitudes in terms of their gender

Attitude	Gender	N	Mean	Std.	Sig.	T	Df
				Deviation			
	Male	113	99.0885	13.93259	.329	-.706	202.635
	Female	205	100.1854	11.92891			

As illustrated in Table 6, the results outlined no significant differences between Iranian and Spanish teachers' attitudes towards CALL in terms of their gender. The computed value of t is (-.706) and the significance level is ($p = 0.329$, $p > 0.05$). The finding of this research question shows that both male and female teachers have the same attitudes towards CALL. The finding is approved by other research in the field such as Akbulut (2008), Al-Emran, Elsherif & Shaalan (2016), and Öz, Demirezen & Pourfeiz (2015). In contrast, Alwraikat & Al Tokhaim (2014) claimed a significant difference among teachers' attitudes in terms of their gender.

RQ3: Is there any significant difference among Spanish and Iranian language students' attitudes towards the use of CALL in terms of their age?

To ascertain if there is any significant difference between the students' attitudes towards CALL with regard to their age, frequency, means and standard deviations for the students' age groups (i.e. 18-23, 24-29, 30-35 and 36 and above) are computed as shown in Table 7 and Table 8.

Table 7. Frequency of students' age groups

Age Groups	Frequency	Percent	Valid Percent	Cumulative Percent
18-23	99	32.2	32.2	32.2
24-29	71	23.1	23.1	55.4
30-35	64	20.8	20.8	76.2
36 and above	73	23.8	23.8	100.0
Total	307	100.0	100.0	

Table 8. Mean and standard deviation for students' attitudes in terms of their age

	N	Mean	Std. Deviation
Age Groups	307	2.36	1.164

Furthermore, a one-way analysis of variance (ANOVA) was implemented to explore if there are any statistical significant differences between the mean scores. As displayed in Table 9, results demonstrated that there is no statistical significant differences ($p = 0.052$, $p > 0.05$) between the students' attitudes with regard to their age and the computed of F value is (2.604).

Table 9. ANOVA results for students' attitudes in terms of their age

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1647.230	3	549.077	2.604	.052
Within Groups	63887.402	303	210.850		
Total	65534.632	306			

Although Öz (2015) believed that there is a statistical difference between students' attitudes towards CALL based on their age, the finding of this question is consistent with Al-Emran, Elsherif and Shaalan (2016) and Tafazoli, Gómez and Huertas (2018) who reported no differences.

RQ4: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of their age?

To discover if there is any significant difference among the teachers' attitudes towards CALL with regard to their age, frequency, means and standard deviations for the teachers' age groups (i.e. 18-23, 24-29, 30-35, and 36 and above) are computed as shown in Table 10 and 11.

Table 10. Frequency of teachers' age groups

Age Groups	Frequency	Percent	Valid Percent	Cumulative Percent
18-23	8	2.5	2.5	2.5
24-29	45	14.2	14.2	16.7
30-35	95	29.9	29.9	46.5
36 and above	170	53.5	53.5	100.0
Total	318	100.0	100.0	

Table 11. Mean and standard deviation for teachers' attitudes in terms of their age

	N	Mean	Std. Deviation
Age Groups	318	3.34	.813

Furthermore, a one-way analysis of variance (ANOVA) was implemented to explore if there are any statistical significant differences between the mean scores. As displayed in Table 12, results demonstrated that there is a statistical significant difference ($p = 0.028$, $p > 0.05$) between the students' attitudes with regard to their age and the computed of F value is (3.077).

Table 12. ANOVA results for students' attitudes in terms of their age

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1452.568	3	484.189	3.077	.028
Within Groups	49405.145	314	157.341		
Total	50857.714	317			

In order to determine where the differences in mean scores occur, the Tukey test for *post-hoc* comparisons was used. Results revealed that there are no statistical differences among the students' attitudes between and within age groups (Table 13). This could be attributed to the fact that the age factor is distributed across four groups (18-23, 24-29, 30-35, and 36 and above). Therefore, it is very difficult to determine where the difference may occur.

Table 13. Post-hoc Tukey test for students' attitudes towards CALL on age groups variable

(I) Age	(J) Age	Mean Difference			95% Confidence Interval	
		(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
18-23	24-29	-3.85556	4.81291	.854	-16.2865	8.5754

	30-35	-6.32105	4.61778	.520	-18.2480	5.6059
	36 and above	-1.61176	4.53797	.985	-13.3326	10.1091
24-29	18-23	3.85556	4.81291	.854	-8.5754	16.2865
	30-35	-2.46550	2.26995	.698	-8.3284	3.3974
	36 and above	2.24379	2.10286	.710	-3.1876	7.6751
30-35	18-23	6.32105	4.61778	.520	-5.6059	18.2480
	24-29	2.46550	2.26995	.698	-3.3974	8.3284
	36 and above	4.70929*	1.60679	.019	.5592	8.8594
36 and above	18-23	1.61176	4.53797	.985	-10.1091	13.3326
	24-29	-2.24379	2.10286	.710	-7.6751	3.1876
	30-35	-4.70929*	1.60679	.019	-8.8594	-.5592

RQ5: Is there any significant difference among the Spanish and Iranian language students' attitudes towards the use of CALL in terms of their educational level?

The researchers used an independent samples *t*-test in order to find out if there is any statistical significant difference among the students' attitudes towards CALL with regard to their educational level (BA, MA, and PhD). As illustrated in Table 14, results demonstrated that there is a statistical significant difference among students' attitudes in terms of their educational level ($p = 0.028$, $p > 0.05$).

Table 14. ANOVA results for students' attitudes in terms of their educational level

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1528.034	2	764.017	3.629	.028
Within Groups	64006.598	304	210.548		
Total	65534.632	306			

To delve into this matter further, the researchers decided to perform the Tukey test as the *post-hoc* analysis. The Tukey test, as illustrated in Table 15, did not report any significant differences among the attitudes of different educational level towards CALL.

Table 15. Post-hoc Tukey test for students' attitudes towards CALL on educational level variable

(I) Degree	Academic Degree (J)	Academic Degree	Mean Difference (I-J)	Difference Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
BA	MA		-3.99294	1.78548	.067	-8.1982	.2123
	PhD		-5.48814	2.56855	.084	-11.5377	.5614
MA	BA		3.99294	1.78548	.067	-.2123	8.1982
	PhD		-1.49520	2.61937	.836	-7.6645	4.6741
PhD	BA		5.48814	2.56855	.084	-.5614	11.5377
	MA		1.49520	2.61937	.836	-4.6741	7.6645

RQ6: Is there any significant difference among the Spanish and Iranian language teachers' attitudes towards the use of CALL in terms of their educational level?

A one-way analysis of variance (ANOVA) was executed to investigate if there are any statistical significant differences between the teachers' attitudes in terms of their educational level. As demonstrated in Table 16, results revealed that there is no statistical significant differences ($p = 0.286$, $p > 0.05$) between the teachers' attitudes with regard to their educational level.

Table 16. ANOVA results for teachers' attitudes in terms of their educational level

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	402.466	2	201.233	1.256	.286
Within Groups	50455.248	315	160.175		
Total	50857.714	317			

On the one hand, the findings of this question are in line with Al-Emran, Elsherif and Shaalan (2016) who studied the faculty members' attitudes towards M-learning in terms of academic rank. On the other hand, an ANOVA test on Saudi Arabian faculty members' attitudes towards M-learning showed that young teaching assistant with lower rank were more positive than academic staff of higher ranks (Alwraikat & Al Tokhaim, 2014).

6. Conclusion

The evolution of educational technology in general, and Computer-Assisted Language Learning (CALL) in particular, has had a vital impact on language teaching and learning. This paper tried to accentuate the state-of-the-art in educational technology regarding teachers and students' attitudes towards CALL. The main aim of this study was to investigate Iranian and Spanish teachers' and students' attitudes, which, in turn, may support the decision makers of these two countries language educational organizations in the process of designing, integrating and utilizing the required CALL infrastructure, materials and tools. In this study, different variables such as gender, age and educational level, have been taken into account while investigating those attitudes.

According to the findings of this study, all the calculated factors (gender, age and education level) had no relationship to the attitudes of language teachers and students towards CALL. These findings may indicate that most language teachers and students understand the critical role of CALL in their professional and daily lives. Designing, developing and applying CALL materials and tools in language educational settings is inevitable, and the new trend of

language teaching and learning through technology among teachers and students (which this study has documented) is to use these materials and tools extensively.

Within the field of CALL, there are many areas of research, but this study has emphasized the role of demographic features on how language teachers and students appreciate the use of CALL in educational contexts. We would like to suggest some action research-based studies that we believe our results may not be appropriate to all CALL related contexts. The success of CALL in other contexts, from Eastern to Western countries, may lead to different results. Hence, we recommend further research into investigating what specifically second and foreign language teachers and students need to integrating CALL in their language environments.

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