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## A Cross-Cultural Qualitative Study on Students' Attitudes towards Computer-Assisted Language Learning

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### Abstract

This cross-cultural qualitative study investigated the attitudes and perceptions of language students towards computer-assisted language learning (CALL). We examined the strengths, weaknesses, opportunities, and threats of CALL in language education according to Iranian and Spanish students' perceptions and attitudes. In addition, we found out the differences between Iranian and Spanish language students' perceptions and attitudes towards CALL. The participants were 237 language students, and the researchers applied an online 10 open-ended question instrument for data collection and a SWOT analysis for data analysis. The findings of the content analysis revealed that many language students in Iran and Spain approved that CALL provides a wide range of tools, resources and materials for language learning. Among many pedagogical implications, this study suggests more CALL programs in order to enhance students' CALL literacy.

### Keywords

Computer-Assisted Language Learning (CALL), Cross-Cultural Study, Delphi Methodology, Qualitative Study, SWOT analysis, Attitudes, Perceptions

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## **A Cross-Cultural Qualitative Study on Students' Attitudes towards Computer-Assisted Language Learning**

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*This cross-cultural qualitative study investigated the attitudes and perceptions of language students towards computer-assisted language learning (CALL). We examined the strengths, weaknesses, opportunities, and threats of CALL in language education according to Iranian and Spanish students' perceptions and attitudes. In addition, we found out the differences between Iranian and Spanish language students' perceptions and attitudes towards CALL. The participants were 237 language students, and the researchers applied an online 10 open-ended question instrument for data collection and a SWOT analysis for data analysis. The findings of the content analysis revealed that many language students in Iran and Spain approved that CALL provides a wide range of tools, resources and materials for language learning. Among many pedagogical implications, this study suggests more CALL programs in order to enhance students' CALL literacy. Keywords: Computer-Assisted Language Learning (CALL), Cross-Cultural Study, Delphi Methodology, Qualitative Study, SWOT Analysis, Attitudes, Perceptions*

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The implementation of Computer-Assisted Language Learning (CALL), which in this study is understood as any application of technology for language teaching and learning (Tafazoli, Gómez-Parra, & Huertas-Abril, 2018), has been investigated in different forms. One of the issues in implementing CALL is students' CALL literacy. As defined by Tafazoli (2017), CALL literacy is "the ability to use technology at an adequate level for learning a language." As the students are the end-users of the CALL, scholars, teachers, and decision makers in education should improve students' CALL literacy. In addition, previous research tackled the issue of the way in which teachers are implementing CALL tools in their classrooms (Jin, 2018; Schulze & Scholz, 2018; Yang, 2018). A number of studies investigated the students' attitudes towards CALL (Heflin, Shewmaker, & Nguyen, 2017; Lin, Warschauer, & Blake, 2016; Lintunen, Mutta, & Pelttari, 2017; Pinto-Llorente, Sánchez-Gómez, García-Peñalvo, & Casillas-Martín, 2016; Wright, 2017).

Applications of serious games or video games in language learning and teaching, which is a new trend in CALL, is a way to add the value of competition and fun to language education by integration of technology. Riemer and Schrader (2015) reported the positive attitudes of German students towards learning with serious games. Moreover, the authors claimed that games have potential to support students' learning performance. In Cyprus, the study conducted by Ozdamli and Uzunboylyu (2015) showed the positive attitudes and perceptions of students towards mobile learning. Kung's (2015) study on American students found blog-assisted language learning (BALL) writing instruction positive. Although the participants regarded BALL as convenience, accessible, flexible, and autonomous, they reported its potential problems such as teachers' and students' poor technical skills, insufficient face-to-face interaction with instructor, support and time management skills. In Spain, Pinto-Llorente

et al. (2016) stated that the students' attitudes and perceptions towards technological tools such as podcast, videocast, online tests, online glossary and forums were positive. Pinto-Llorente and her colleagues counted different reasons for Spanish participants' positive attitudes towards CALL: (1) technology gives students the opportunity to boost their autonomy, self-paced and individualized learning, (2) technology provides a natural and real environment (authentic exposure) and authentic materials for grammar practice, (3) technology supports collaborative and independent learning, (4) flexibility (anytime and anywhere feature) of technology, (5) technology enhances students' motivation, and (6) technology carries out continuous self-assessment. Forty-two percent of Malaysian EFL students in Wright's (2017) study preferred online lessons over in-class lessons. The participants preferred online lessons based on the following reasons: (1) comfort, convenience of time and location, (2) shorter time, (3) more flexible timing, (4) do not have to hurry to class, (5) flexible location (relaxed and ability to repeat video), (6) enjoyment (interesting, fun, exciting, different, and ease to focus), (7) skills enhancement (can easily get information about the subject, independent study opportunity, and English skill improvement).

In Finland, language students expressed their positive attitudes towards implementing technologies in learning. In a study by Lintunen, Mutta, and Pelttari (2017), the participants perceived that technologies (1) have a facilitating effect on students' communication skills, (2) improve the role of teacher as a facilitator, (3) diversify teaching materials, (4) meet students personal learning styles, (5) are not too time-consuming, (6) decrease students' stress and anxiety, (7) promote interactive cooperation, and (8) increase learners' engagement in learning process. However, about half of the participants believed that technologies might harm face-to-face interactions. Hamid, Waycott, Kurnia, and Chang (2015) conducted a cross-cultural study on Malaysian and Australian students' perceptions towards using social technologies in order to improve language learning interactions. The participants of the study reported many merits of social technologies: (1) allow more engagement with the content, (2) improve peer learning, (3) enhance critical thinking, (4) promote self-directed learning, (5) allow self-monitoring of learning progress, (6) provide a platform to interact with lecturers, and (7) provide enjoyable and interactive learning environment.

Although many researchers explored students' attitudes towards CALL (Hamid et al., 2015; Heflin et al., 2017; Kung, 2015; Lin et al., 2016; Lintunen et al., 2017; Ozdamli & Uzunboylu, 2015; Pinto-Llorente et al., 2016; Riemer & Schrader, 2015; Wright, 2017), a comprehensive review of the literature revealed that most of previous research on attitudes towards CALL is conducted within a specific culture and setting. Regardless of the thoughtful information in CALL attained over the review of literature, no study based on our literature review has cross-culturally and qualitatively explored the attitudes and perceptions of language students in large-scale. A cross-cultural study is an effective way to explore the psychological traits (Matsumoto & Yoo, 2006) which can provide educational improvement (Stigler & Hiebert, 1999).

Based on the aims of the study, the researchers tried to find the answer for the following research questions:

Q1: What are the strengths, weaknesses, opportunities, and threats of CALL in language education according to Iranian and Spanish students' perceptions and attitudes?

Q2: What are the differences between Iranian and Spanish language students' perceptions and attitudes towards CALL?

## **Researchers' Background**

This study is situated in the context of language teachers in Iran and Spain where Dara Tafazoli came to this research as a doctoral student interested in learning more about differences in CALL literacy and the attitudes and perceptions of language students towards computer-assisted language learning in two different developed (Spain) and developing (Iran) countries. Now, Dara holds a PhD in Languages and Cultures from the University of Cordoba in Spain, and he is working on developing and implementing the CALL literacy framework for language teachers at the University of Newcastle, Australia. He has taught English language at several universities and language institutes in Iran for eight years. His research focus is on developing and implementing a new framework in CALL literacy. The second author, María-Elena, is a lecturer of English at the Department of English and German Philology at the University of Córdoba, Spain. She has worked with EL educators for decades. Her research lines are focused on bilingual and intercultural education. She teaches CLIL and English in Teacher Education (English) and Intercultural Communication at Master's Level. She is the main researcher of the project entitled *LinguApp*, funded by Centro de Estudios Andaluces (Ref. No. PRY208/17), and she is also the Main Researcher of a National Research Project funded by the Spanish Ministry of Industry, Economy and Competitiveness (MINECO) entitled 'BESOC' (Ref. No. EDU2017-84800R). These two research projects deal with the use of technology to enhance language learning in different contexts, so CALL literacy is directly connected to her research interests. Finally, the third author, Cristina A. Huertas-Abril, is also a lecturer of English at the Department of English and German Philology at the University of Córdoba, Spain. She is an interdisciplinary researcher working mainly within CALL, Second Language Teaching and Learning, Bilingual Education, Language Gap, and Translation Studies. She has participated in several national and international interdisciplinary research projects dealing with CALL. Moreover, she has directed and taught several specialization courses on Bilingual Education and Second Language Acquisition, paying special attention to technology-enhanced learning.

## **Methodology**

### **Research Design**

Due to the nature of this inquiry, we agreed to establish the study based on the qualitative design. Qualitative content analysis is "a flexible method for analyzing text data" (Cavanagh, 1997, as cited in Hsieh & Shannon, 2005, p. 1277). The type of qualitative content analysis depends on the aim and problem of the research, and on the researcher's interest (Weber, 1990). This study has chosen directed content analysis, whose main aim is to predict the variables of interest (Hsieh & Shannon, 2005) to find out four categories of strengths, weaknesses, opportunities, and threats based on the collected data from Iranian and Spanish language students. Then, according to this framework, we identified all the stages of conducting this research, from raising research questions to data collection and analysis. Working within this type of design, later, we chose the data collection techniques introduced earlier.

### **Participants**

This study was conducted in 2017-2018 academic year in Iran and Spain. We administered a 10 open-ended question instrument (questionnaire) to 307 language students. The participants were selected through criterion referenced (purposive) sampling techniques

(Mertens, 2014). Regarding specific criteria, all of the participants should be language students and have some experience in using one of the technology-based tools of language learning. Participants were requested to respond to these open-ended questions on a voluntary basis, and they had to write their responses online via a document uploaded onto Google Forms. Finally, out of the 307 participants, 237 responded to the 10 open-ended questions in the study. Within the respondent participants, 149 students were Iranian and 88 were Spanish. Moreover, female was the dominant gender in the sample with over half of the teacher participants (179). A total of 98 participants of the sample were male. In addition, the minority group in terms of education level was PhD students who summed up to 31 participants, while the major group was BA participants with 107; and 99 students were MA students. As far as age was concerned, 69 participants fell within the age range of 18 to 23, 62 students were between 24 to 29 years old, 48 participants were in the range of 30 to 35, and 58 students were 36 and above.

## **Data Collection**

Applying the Delphi methodology is one way to make an effective decision regarding instrumentation (Sekayi & Kennedy, 2017). After the design of the initial questionnaire by the first author, he submitted the draft to a panel of experts included twenty PhDs in 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 other countries. In this method, data collection and analysis were conducted through (1) the discovery of opinions; (2) the process of determining the most important issues; and (3) managing opinions (Keeney, Hasson, & McKenna, 2000). In the first step, we discovered the opinions of this panel to reach consensus on the content of the questionnaire. According to the assigned deadlines, experts were asked to write their comments on the draft survey which had been submitted via email, based on their experience and expertise regarding each statement for minor modifications. In the second step, content analysis technique was applied in order to analyze collected data. In the last step, at the end of three rounds consensus was reached, so we could finalize the questionnaire and prepare it for distribution.

The final questionnaire contains 14 demographic information and 10 open-ended questions were included in the final version of this instrument. In the last step, the researchers submitted the final version of the instrument to the panelists for endorsement. The experts in the panel labeled the statements strongly and moderately. The researchers agreed on the final version of the instrument for distribution as all the statements are “moderately or strongly endorsed by 75% of participants” (Sekayi & Kennedy, 2017, p. 2758).

The survey as a questionnaire is one of the most usual methods of data collection on perceptions and opinions in a large-scale research (Mackey & Gass, 2005). We used online questionnaire to collect data from language students to discover their attitudes, perceptions and/or reactions about the implementation of technology in their language learning process, settings, activities, etc. Providing automatic data coding, data input, data editing and data assessment are among the features of the online questionnaires. In addition, the participants have easy access to the questionnaires via the provided online link.

## **Data Analysis**

In this cross-cultural and qualitative study, we applied an online questionnaire which includes open-ended questions to understand the perceptions and attitudes of language students in Iran and Spain towards CALL. We followed directed content analysis to analyze data collected from participants based on a manual SWOT (Strength, Weakness, Opportunity, and Threat) analysis. The data analysis included content analysis of qualitative data to categorizing

and arranging them into the SWOT matrix. Content analysis was applied in the current study, “a research technique for making replicable and valid inferences from data to their context” (Krippendorff, 1980, p. 21) and which “uses a set of procedures to make valid inferences from text” (Weber, 1990, p. 9).

The SWOT analysis is a scientific way to address the strengths, weaknesses, opportunities, and threats of a phenomenon to analyze the intervening determinants for progress and forecast the potential obstacles. The SWOT analysis is broadly used for “strategic planning of long-term and short-term development” (Thamrin & Pamungkas, 2017, p. 144). Different stages of SWOT analysis were utilized in this study including: (a) data gathering, (b) classifying data into strengths, weaknesses, opportunities or threats, (c) specifying the weight of each factor, (d) determining rates, and (e) reporting the result.

In this study, the first author made a questionnaire-based system in order to automate SWOT analysis process (see Figure. 1). The SWOT matrix was built upon the questionnaire responses of language students in two countries (Iran and Spain). The nature of the collected data was qualitative. In order to determine the positive or negative mood of the qualitative responses, text processing in the form of content analysis is required.

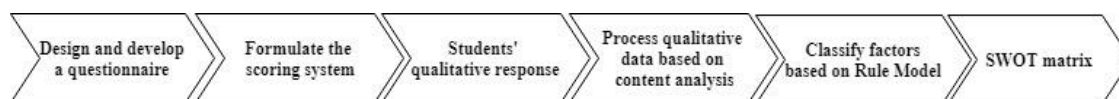


Figure. 1. Data analysis process (Own elaboration)

The collected qualitative data of the study were in the form of text description which need content analysis before classifying them into the SWOT matrix. The total of weight scores was calculated and then classified the content of each data into relevant SWOT categories: strengths, weaknesses, opportunities, and threats. The Rule Model (Thamrin & Pamungkas, 2017) was adopted to classify the factors based on students’ responses (see Table 1). The Rule Model is applicable for making a distinction between the answers according to both external and internal categories. The participants’ responses were coded based on “its sentiment value” (Thamrin & Pamungkas, 2017, p. 148). After coding the data to matrix of internal/external and positive/negative, the researchers classified them into SWOT categories.

**Table 1.** Rule Model (Adopted from Thamrin & Pamungkas, 2017)

Factor		Score	
		Positive	Negative
	Internal	Strength	Weakness
	External	Opportunity	Threat

In data analysis, we categorized the data based on students’ responses into two categories of positive and negative. Those positive responses which dealt with the internal factor considered as strength and the negative responses considered as weakness. On the other hand, external factors were labeled as opportunity and threat if they were considered either positive or negative, respectively. Internal factors are those which totally related to the students’ issues; however, external factors deal with teachers, administrators, decision makers, and technology itself.

In order to check the inter-rater reliability of the content analysis phase (i.e., labeling and categorizing the external and internal factors based on the Rule Model), data analysis was executed. In order to boost the reliability of the findings, at the beginning, the first author carried out the analysis of the data which was later re-scrutinized by the second and third

authors as well. This procedure of cross-checking showed the high consistency between all the three rounds of analysis which also confirm the reliability and validity of the questionnaire.

## Results

This section reports the findings of the analysis of language students' attitudes and perceptions towards CALL in Iran and Spain. After data analysis, we categorized data into four categories of strengths, weaknesses, opportunities, and threats. Before going through the results of the study, we want to point out that the SWOT matrix of this study was designed based on participating students' point of view, which might be quite different from other groups (e.g., teachers, administrators, etc.). In the following, we present and discuss the emerged SWOT matrix with extracts from data. In consequence, to illustrate the categories we refer to extracts taken from data gathered through the questionnaire.

***First Research Question:*** *What are the strengths, weaknesses, opportunities, and threats of CALL in language education based on Iranian and Spanish students' perceptions and attitudes?*

Findings revealed that, from a positive viewpoint, participating language students in Iran and Spain identified common strengths for CALL. According to their reports, (1) CALL provides a wide range of tools, resources and materials; (2) CALL helps students to learn more efficiently and effectively; (3) CALL improves language learning; (4) CALL provides real communication with native speakers; (5) CALL decreases students' anxiety and stress; (6) CALL provides immediate, unbiased and constant feedback; (7) CALL makes students autonomous; (8) CALL increases peer interactions; (9) CALL provides authentic materials; (10) CALL increases students' motivation; (11) CALL facilitates learning; and (12) CALL boosts personalized learning. It must be mentioned that the researchers specified a code in brackets to each student in the sample. Regarding CALL, one of the students [S16] stated: "I think CALL helps learners be more active and confident. Besides, it facilitates learning for those who are not able to communicate easily." Furthermore, the participating students addressed some features which dealt with CALL itself. They believed that CALL is (1) fun, interesting, and joyful; (2) accessible and available; (3) flexible; (4) modern and up-to-date; (5) interactive; (6) attractive; and (7) user-friendly. [S244] stated: "CALL is interactive, you can put games in class, to look for interesting listening on Internet about whatever topic, to look for the news and learn real vocabulary, etc." In addition, Iranian and Spanish students acknowledge some more opportunities provided by CALL: (1) Learning with CALL is convenient and comfortable; (2) Working with CALL is fast; (3) Ubiquitous learning; and (4) Working with CALL is saving time, money, and energy.

On the opposite side, many students reported weaknesses of CALL such as (1) students' lack of CALL/computer/technology literacy; (2) CALL distracts students; (3) CALL decreases face-to-face interactions; (4) CALL does not provide concise feedback; and (5) CALL makes students more dependent on technology. [S211] stated: "I love using technology when learning a new language as it can become far more interactive and motivating. However, I truly believe that both teachers and students are not really prepared in order to squeeze its advantages."

Finally, other barriers in implementing CALL such as (1) technical issues, (2) technology breaks down; (3) lack of facilities and infrastructure; (4) time-consuming; (5) health effect such as eyestrain; (6) bad or low quality content; and (7) hindering the role of teachers through CALL were counted as threats for implementing CALL in language education based on students' perceptions.



[S1130]: The point is that I'm Iranian and I live in Iran. So we have some problems such as poor [Inter]net speed and disconnections of the internet devices. So these are some problems that should be solved in our country to have the best result.

***Second Research Question:*** *What are the differences between Iranian and Spanish language students' perceptions and attitudes towards CALL?*

Different perceptions are reported by the language students in Iran and Spain. Language students in Iran highlighted more key factors than Spanish students. In their point of view, (1) helping students to learn more efficient and effective; (2) providing real communication with native speakers through CALL; and (3) decreasing students' anxiety and stress are more critical than other factors.

However, for Spanish students providing immediate, unbiased and constant feedback through CALL has more weight in comparison to Iranian perception. It should be noted that there are some strengths for Iranian students, such as (1) CALL enhances students' self-confidence; (2) students can monitor their progress through CALL; and (3) CALL meets different learning styles, of which the researchers could not find any track among Spanish students' responses.

Data analysis also revealed that, in the category 'opportunities,' some advantages such as (1) CALL is fun, interesting, and joyful; (2) learning with CALL is convenient and comfortable; (3) CALL is accessible and available; (4) working with CALL is fast; and (5) CALL is modern and up-to-date were more relevant among Iranians than among Spanish students. [S23] stated: "I do support the use of technology in language courses, of course by considering several factors first, like its availability, access, students' competence in using technology, time management, and other factors which might be interfering the technology use."

However, more language students in Spain than in Iran perceive that CALL is flexible. More surprisingly, only Iranian students believed that CALL is accurate and precise. The contradiction between Iranian and Spanish language students were also observed regarding negative perceptions towards CALL. On the one hand, many Iranian students complained about their lack of CALL/computer/technology literacy. On the other hand, Spanish students focused more on the distracting function of CALL. Even more, none of the Spanish language students reported the confusion caused by the variety of CALL materials for learners, and the lack of confidence in using CALL, but Iranians did. However, only Spanish students stated that CALL does not address all students' learning styles.

Finally, regarding threats category, more Iranian than Spanish students complained about technical issues of CALL. In addition, only Iranian students declared the following regarding the threats for implementing CALL: (1) CALL is expensive; (2) CALL is boring; (3) CALL is not available; (4) CALL does not provide enough guidelines for the users; (5) teachers' lack of CALL/computer/technology literacy; and (6) CALL is not reliable. In opposite, only Spanish students believed that CALL is complex and not user-friendly. [S237] stated: "[Teachers] have to know the specific tools and software very well, which isn't always the case. They rely on aspects such as connection which aren't always that trustworthy."

Table 2. *SWOT Matrix for Language Students in Iran and Spain, Arranged Based on Frequency*

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• CALL provides wide range of tools, resources and materials (IR/ES)</li> <li>• CALL helps students to learn more efficient and effective (IR/ES)</li> <li>• CALL improves language learning (IR/ES)</li> <li>• CALL provides real communication with native speakers (IR/ES)</li> <li>• CALL decreases students' anxiety and stress (IR/ES)</li> <li>• CALL provides immediate, unbiased and constant feedback (IR/ES)</li> <li>• CALL makes students autonomous (IR/ES)</li> <li>• CALL increases peer interactions (IR/ES)</li> <li>• CALL provides authentic materials (IR/ES)</li> <li>• CALL increases students' motivation (IR/ES)</li> <li>• CALL facilitates learning (IR/ES)</li> <li>• CALL enhances students' self-confidence (IR)</li> <li>• CALL boosts personalized learning (IR/ES)</li> <li>• Students can monitor their progress through CALL (IR)</li> <li>• CALL meets different learning styles (IR)</li> </ul>	<ul style="list-style-type: none"> <li>• Students' lack of CALL/computer/technology literacy (IR/ES)</li> <li>• CALL distracts students (IR/ES)</li> <li>• CALL decreases face-to-face interactions (IR/ES)</li> <li>• CALL does not provide concise feedback (IR/ES)</li> <li>• CALL makes students more dependent on technology (IR/ES)</li> <li>• Variety of CALL materials confuses learners (IR)</li> <li>• Students do not feel confident is using CALL (IR)</li> <li>• CALL does not address all learning styles (ES)</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• CALL is fun, interesting, and joyful (IR/ES)</li> <li>• Learning with CALL is convenient and comfortable (IR/ES)</li> <li>• CALL is accessible and available (IR/ES)</li> <li>• Working with CALL is fast (IR/ES)</li> <li>• Ubiquitous learning (IR/ES)</li> <li>• CALL is flexible (IR/ES)</li> <li>• CALL is modern and up-to-date (IR/ES)</li> <li>• Working with CALL is saving time, money, and energy (IR/ES)</li> </ul>	<ul style="list-style-type: none"> <li>• Technical issues (IR/ES)</li> <li>• CALL breaks down (IR/ES)</li> <li>• Lack of facilities and infrastructure (IR/ES)</li> <li>• Working with CALL is time-consuming (IR/ES)</li> <li>• CALL is expensive (IR)</li> <li>• CALL is boring (IR)</li> <li>• CALL is not available (IR)</li> <li>• Health effect (IR/ES)</li> <li>• Bad or low quality content (IR/ES)</li> <li>• CALL hinders the role of teachers (IR/ES)</li> </ul>

<ul style="list-style-type: none"> <li>• CALL is accurate and precise (IR)</li> <li>• CALL is interactive (IR/ES)</li> <li>• CALL is attractive (IR/ES)</li> <li>• CALL is user-friendly (IR/ES)</li> </ul>	<ul style="list-style-type: none"> <li>• CALL does not provide enough guidelines (IR)</li> <li>• Teachers' lack of CALL/computer/technology literacy (IR)</li> <li>• CALL is complex and not user-friendly (ES)</li> <li>• CALL is not reliable (IR)</li> </ul>
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IR: Iranian language students

ES: Spanish language students

## Discussion

The findings herein are in line with previous studies on the opportunities provided by a variety of CALL tool, materials, and programs such as Learning Management System (LMS) (Evseeva & Solozhenko, 2015), Social Networking Sites (SNS) (Akbari, Pilot, & Simons, 2015; Brick, 2015), and mobile applications (Godwin-Jones, 2011). Moreover, regarding positive features for implementing CALL in language classrooms are in line with previous studies in the field regarding the following features: efficient (Golonka, Bowles, Frank, Richardson, & Freynik, 2014), convenient (Kvavik, 2005), user-friendly (Stiler & Philleo, 2003), fun, interesting, and joyful (Balakrishnan, Liew, & Pourgholaminejad, 2015), flexible (Wanner & Palmer, 2015), interactive (Takacs, Swart, & Bus, 2015), and attractive (Shyamlee, 2012). Real communication and authentic environment are desirable elements in effective learning (Hwang, Ma, Shadiev, Shih, & Chen, 2016). In addition, authenticity of environment and materials emphasizes meaningful learning in contexts that involve real-world communications (Shadiev & Huang, 2016). As CALL decreases students' anxiety and stress, the findings of this study are in agreement with Lai and Kritsonis (2006) who claimed that "computer technology can provide a lot of fun games and communicative activities, reduce the learning stresses and anxieties" (p. 2).

Moreover, according to Hattie and Timperley (2007), provided feedback in CALL can serve to immediately bridge the gap between students' current level in the learning process and the expected learning outcomes. This means that CALL could help teachers in providing instant and individualized feedback, which is in line with both participants' claims and previous research in the field (e.g., Mokhtarnia & Tafazoli, 2013; Tafazoli, Nosratzadeh, & Hosseini, 2014). Furthermore, the participants emphasized the positive effect of CALL on peer collaboration and interactions. Much research is dedicated to the positive effects of technology on enhancing peer interaction and sharing knowledge among participants (e.g., Ioannou, Brown, & Artino, 2015; Li & Kim, 2016). Neumann and McDonough (2015) affirmed, "interaction plays an essential role in knowledge-building by creating opportunities for learners to elicit help from experts or simply articulate steps in the problem-solving process through internal or external speech" (p. 84). Enhancing students' motivation and interest via CALL is also cited by other scholars (González-Gómez, Guardiola, Rodríguez, & Alonso, 2012; Yilmaz, 2017). Motivation could be assumed as the most important determinant of educational design (Keller, 1979), which has a significant effect on students' attitudes (Golshan & Tafazoli, 2014; Tafazoli, Gómez-Parra, & Huertas-Abril, 2018, 2019), and learning behaviors in educational contexts (Fairchild, Jeanne-Horst, Finney, & Barron, 2005).

In reference to one of the main pitfalls, students' lack of CALL/computer/digital literacy, although many studies concentrated on the concepts of computer and digital literacies or competencies (Ilomäki, Paavola, Lakkala, & Kantosalo, 2014; Røkenes & Krumsvik, 2016;

Tafazoli, Gómez-Parra, & Huertas-Abril, 2017) and its importance in teacher education (Arnold & Ducate, 2015) – also reported by the participants, none of the previous research dealt with the critical concept of CALL literacy (Tafazoli, 2017). Also, students' confusion and distraction support the previous study by Montrieux, Vanderlinde, Schellens, and De Marez (2015) and in contrast with other studies (de la Fuente, 2014; Oberg & Daniels, 2012). Moreover, students claimed that using CALL decreases face-to-face interaction among students and between teacher and students which previously reported by different scholars in the field (Arkorful & Abaidoo, 2015; Lintunen, Mutta, & Pelttari, 2017; Kung, 2015; Shyamlee, 2012). In addition, a few students stated that CALL does not provide concise feedback. This finding is totally in contrast to previous studies which support the provided feedback through CALL (Hattie & Timperley, 2007; Mokhtarnia & Tafazoli, 2013; Tafazoli et al., 2014).

The finding of the content analysis revealed that many language students in Iran and Spain approved that CALL provides a wide range of tools, resources, and materials for language learning. This finding is in line with previous studies on the opportunities provided by a variety of CALL tools and materials. Moreover, data analysis showed that participating language students in Iran and Spain counted some positive features for implementing CALL in language classrooms, which is in line with previous studies in the field regarding the following features: efficient, convenient, user-friendly, fun, interesting, and joyful, flexible, interactive, and attractive. The participants also added that one of the most significant features of CALL is to provide rich, real, and authentic communication, environment and materials. Real communication and authentic environment are desirable elements in effective learning. In addition, authenticity of environment and materials emphasizes meaningful learning in contexts that involve real-world communications.

Another critical factor which plays as a barrier for language learning is the psychological factor. However, based on the perceptions of language students in the study, CALL decreases students' anxiety and stress. A substantial determinant of the assessment for learning approach is the feedback provided to students, which is also considered as one of the most effective medium to enhance student learning. The students in the study highlighted that CALL gives learners immediate, unbiased, and constant feedback. CALL has the capability of providing timely feedback. Provided feedback in CALL can serve to immediately bridge the gap between students' current level in the learning process and the expected learning outcomes. This means that CALL could help teachers in providing instant and individualized feedback.

Undoubtedly, enhancing students' autonomy is one of the major duties of educational systems (Iftene, 2014). A fundamental educational aim is to support individuals to become autonomous learners who actively apply technologies to build their own personalized learning spaces. This is totally in congruent with language students who claimed that CALL boosts learners' autonomy. Moreover, the Iranian and Spanish participants of this study emphasized the positive effect of CALL on peer collaboration and interactions. There is much research dedicated to the positive effects of technology on enhancing peer interaction and sharing knowledge among participants.

Enhancing students' motivation and interest via CALL is another strength for implementing CALL which is extracted from participating students in the study (González-Gómez et al., 2012; Yilmaz, 2017). Motivation could be assumed as the most important determinant of educational design which has a significant effect on students' attitudes, and learning behaviors in educational contexts. Students also reported that CALL gives opportunities for personalized learning. We use the term 'personalized' as each learner has the chance to learn at their own pace. In addition, students accentuated the 'ubiquitous learning' feature of CALL, which results in variation in students' behavior. Although the responses of the participating students were in favor of CALL, students reported some drawbacks of

implementing CALL. Students' lack of CALL/computer/digital literacy should be considered as the most significant pitfall of CALL – based on the frequency of students' responses and the significance of issue itself. Although many studies concentrated on the concepts of computer and digital literacies or competencies and its importance in teacher education. Students also reported that implementing CALL might results in students' confusion and distraction.

Moreover, Iranian and Spanish students claimed that using CALL decreases face-to-face interaction among students, and between teacher and students. In addition, a few students stated that CALL does not provide concise feedback. Students' over-dependency to technology, many students call it “addiction to technology,” might act as a hindrance to implement CALL in the classrooms. If the autonomous learner is the aim of education – based on a constructivist perspective –, then “addiction to technology” caused by CALL would not be a supportive statement in educational context.

As classified in the category “threats,” different participating students stated that technical issues and CALL breaks down are the main threats of CALL implementation. Although, these threats are not human-oriented and outside the territory of language students and teacher, we cannot ignore them, and we have to find a remedy for that. Many threats are found at institutional level, such as lack of facilities and infrastructure in the educational premises. Many of the threats are based on the nature of CALL itself: CALL is expensive, complex, not user-friendly, time-consuming, boring, not reliable, and not available. Last but not the least, some students believed that CALL harms their health (eyestrain) and some CALL materials have bad- or low-quality content. Finally, CALL hinders the role of teachers, and the students need enough guidelines for implementing CALL, which is not available.

This study suggests that the efficient implementation of CALL in language learning is hindered by different unique determinants. Based on the findings of the present study, a number of implications related to CALL implementation in language education can be drawn from this piece of research, which can be summed up as follows: (1) Running more obligatory or voluntarily CALL programs in order to enhance students' CALL literacy; (2) Enhancing students' psychological traits in order to overcome anxiety, stress, etc.; (3) Providing students with standardized CALL materials and tools; (4) Encouraging institutions to develop and complete their technological equipment, facilities, and infrastructure; (5) The governments and their education departments/bodies should provide economical facilities for educational institutions to improve their educational equipment and infrastructures; and (6) Enhancing teacher education programs in order to enhance their CALL literacy.

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