



RESEARCH PAPER**The Role of Computer-Assisted Language Learning (CALL) in
Language Teachers' Professional Development****Kishwer Nazli¹ Urooj Yahya*²**

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ABSTRACT

In the 1950s, there were considerable changes in both second language instruction and learning. The transition from teacher-centred to student-centred learning has totally altered the structure of second language teaching, and the process is still going strong. Consideration of incorporating new methods, technology, and devices has become an integral aspect of language classrooms. The involvement of teachers in this phenomenon is critical and unavoidable. Teachers are now eager to understand their students' individual requirements and are looking for methods and activities that might bring about a revolution in the realm of second language teaching. They select the most appropriate and pertinent strategy based on the personalities and attitudes of their students. Due to which, it is essential to give their professional growth top priority so they are prepared to handle today's problems and decide what is best for their students. The study uses a qualitative interview approach to ascertain how technology influences language instructors' professional development with a focus on computer-assisted language learning (CALL). Recommendations are made to improve the professional development of language teachers based on the respondents' answers to the interview questions.

KEYWORDS

Computer Assisted Language Learning, Pedagogical Learning, Professional Development

Introduction

In the contemporary educational environment, the advent of technology has developed a pace for students as well as teachers in order to enhance their professional development. With regard to it, Macià and García (2016) stated that technology or computer-assisted learning has a great potential for teachers to improve their professional development, with an increased focus on specificity, practicality, and continuity. Since the technology has become more widely used and accessible in several different educational contexts, it has also effectively improved the education and learning of teachers, including second language learning. Moreover, Davies (2016) stated that the trend of computer-assisted language learning has been promoted by the increased demands of hybrid and online calls and courses for teacher preparation in the context of second language teaching and learning.

The general label of computer-assisted language learning covers the area of second and foreign language learning that has been prompted by a need to harness its pedagogical importance and potential. Ferrer Ariza and Poole (2018) argue that technology makes computer-assisted language learning possible, which is the most significant and effective way for teachers to improve their professional learning and development within the

framework of sustained and continuous reflection. Despite major advancements in the context of the education system, second language teaching has become a challenging profession across the globe as teachers are required to learn continually in order to provide recent and high-quality language learning material to the students so they enhance their language skills and performance (Son, 2018). For this purpose, language teachers should be provided with the opportunity to update their instructional methods by integrating technology into the educational setting, which is essential for their professional learning and development (Dalal, Archambault, and Shelton, 2017). However, technology integration in the educational setting is still considered an option and has not been implemented in many schools and colleges in various contexts. Thus, the study intends to improve the understanding and knowledge of teachers about computer-assisted language learning and teaching (CALL) which can help them achieve career growth.

An obvious link between technology and the professional development of teachers is evident in the twenty-first-century educational environment and therefore the implementation of technology in the context of teachers' professional learning and development has become inevitable (Hsu, 2016; Chao, 2015). However, few studies have determined the effect of technology or computer-assisted language learning on the professional development of language teachers. Technology has become an integral part of the learning and teaching environment and is essential to facilitate the learning of learners in the teaching profession. Ahmadi and Reza (2018) stated that the technology offers unlimited sources and opportunities to language learners and computer-based language learning improves cooperative and professional learning among learners. Although teachers have been born into a technologically rich world, they still have no access to computer-assisted learning activities for their learning and professional improvement. The current research evaluates the role of computer-assisted language learning in enhancing language teachers' professional development by exploring the impact of technology on the professional development of language teachers with regard to computer-assisted language learning and provides recommendations to educators about how they can improve their professional development through technology integration and online programmes available to them.

Literature Review

The concept of computer-assisted language learning has acquired great attention in the context of second-language learning and teaching as it allows language learners to attain their learning goals as per their ability through using interactive instructional programs. With regard to it, Ai (2017) stated that professional development encouraged through technology can connect teachers directly to the other members of their community and mediates collaborative learning among teachers. Moreover, Santos et al. (2016) stated that technology provides access to teachers to connect with distant language experts in order to improve their professional language learning, and development and access language tools and programmes of high quality. In support, Tafazoli, ómez Parra, and Huertas Abril (2018) stated that computer-assisted language learning and development allow teachers to adopt new pedagogical techniques that they can use for their professional development and learning and apply those learnings in teaching language to the learners.

Furthermore, Ferrer et al. (2015) stated that online language programmes and tools are effective in promoting ownership of teachers for their learning and addressing the desirability of language teachers for collaborative learning and online practice communities. According to Sylvén and Sundqvist (2016), computer-assisted language learning via video technology allows language teachers to develop practical insights by observing the practice of online community language teachers and applying those learning

in their professional practice. Liu, Lin, and Zhang (2017) support this statement and state that the technology-based methods of language teaching enable teachers to improve their auditory and visual senses in order to adjust to their learning process and gain sufficient knowledge and information regarding language teaching methods. In this way, technology plays a significant role in influencing the professional development of language teachers.

Despite the obvious importance of tech-based methods of teaching, teachers in various contexts have got a handful of opportunities to learn to teach students through adopting technology, particularly the computer assisted-language learning. When teaching students, the teachers are likely to get familiar with the computers and related technology that might help them towards self-learning techniques. This technique enables them to learn from online tutorials and contact language experts abroad to foster their learning development (Heift and Hegelheimer, 2017). Another study conducted by Mei, Brown, and Teo (2018) has emphasized the fact that there are countries today where the acceptance level for computer-assisted language learning with regard to a second language is low as in China. Chinese teachers are reluctant to rely on computers for learning or teaching a foreign language showing their resistance to the adoption of technology.

The study of Tomlinson (2016) further emphasized that the use of computer-assisted language teaching has changed the existing methods of language teaching. The computer-assisted language teaching has become a key source for learners to learn conveniently at their homes without much hassle and become proficient in the target language (Nami, Marandi, and Sotoudehnama, 2016). It asserts that the use of technology enables teachers to remain updated regarding language teaching methods and improves the teaching skills and professional development of language teachers. Additionally, McNeil (2016) stated that computer-aided language learning allows language teachers to learn cooperatively and learn from the work of peers and develop language-related tasks for the students accordingly. In this way, computer-aided language learning significantly influences the professional development of language teachers. It is stated by Baser, Kopcha, and Ozden (2016) that computer-aided language learning helps language teachers to acquire knowledge regarding instructional strategies, curricular activities, and lesson plans through websites of renowned education institutes at any time. Computer-aided language programmes also enable language teachers to participate in online language courses and programmes so they can learn more about language teaching skills and remain up to date with recent language lesson plans and activities.

In a study conducted by Liu, Hallinger & Feng (2016), it was shown that the progress of teachers' development is mainly dependent upon the significant relationship between principals and teachers. It is evident in many situations that the productive supervision of the higher authorities including Principals, Coordinators, and subject trainers results in the positive development of teachers. Only awareness of the advantages of technology in teaching in the school context is not sufficient, the real change can only take place if the teachers are trained properly. Language teachers continuously need support, trust, and assistance from the trainers, and authorities so that they can learn to integrate technology as an aid, not a threat. (King & Stevenson, 2017). For this purpose, training can be administered in two folds: internal and external. Internal training, however, is imperceptible, for instance, the guidance of a senior teacher, observing an experienced teacher, and some verbal discussions. External training is formal and schools can take steps to send their teachers for training through some courses, workshops, and hiring any outsource in the schools (Postholm, 2018). These two folds of training are extremely significant in building teachers' expertise and confidence. The difference between internal and external training lies in the quality of conduction and devoted duration for the training.

In the context of technology training, the trainers must be well informed along with the skills of handling basic questions from the teachers.

In Pakistan also, traditional teaching is being gradually replaced with new and innovative teaching methodologies in all subjects generally and in the English language teaching specifically. The English language is considered a metaphor for success in Pakistan (Haider, 2017) while teachers of English enjoy a reputable position due to teaching a language of success. For preparing teachers to teach English effectively, workshops and teacher education programmes are being organized in Pakistan. Fortunately, the awareness of promoting new and latest teaching methodologies is increasing day by day and public and private sector organizations are paying attention to the improvement of teaching methodologies through incorporating the latest technologies. Additionally, a subcommittee has been established by the Higher Education Commission of Pakistan to empower language teachers with computer-assisted language teaching which is undoubtedly a platform for the development and progress of language teachers. In his study, Gopang (2016) presented the statistics of teacher training institutes and resource centers initiated by the government of Pakistan. The statistics showed that there are 203 training institutes and 300 resource centers working for the enhancement of teachers' education in the domain of technology. One more development in this regard is the decision to incorporate computer education into the curriculum at all levels by the government and the ministry of education (Rashid, 2017).

On the foundation of the above-mentioned studies, it can be speculated that in order to achieve an updated and contemporary educational environment in any country, well-trained efficient teachers equipped with all the mandatory and modern inventions and methodologies are inevitable. Teachers must upgrade their knowledge and expertise internally and externally. There is no escape from this trend of adopting and adapting technologies in their classrooms. Teachers might face threats and depression if they lag in this race. However, numerous factors come into play for enhancing teachers' professional development as the role of training institutions alone cannot serve the purpose; other guaranters of imparting quality education should also contribute actively to make it possible.

Material and Methods

The study adopts a qualitative research design in order to analyse the role of computer-assisted language learning in influencing the professional development of language teachers. According to Roller and Lavrakas (2015), qualitative research design relies on non-numerical and unstructured data for studying participants' perceptions, behaviour, and motivation. The reason for choosing qualitative research design is that it allows researchers to explore the detailed understanding of the issue or problem that needs to be addressed in a research study by recording the feelings, attitudes, and behaviours of the research subject. Thus, the use of qualitative design enables researchers to focus on expanding the detailed understanding of the importance of computer-assisted language learning in influencing the professional development of language teachers based on the perceptions and experiences of research participants.

The population that the study targets are the language teachers teaching English as a second language in colleges and universities situated in Karachi. 08 language teachers who teach English as a second language in the educational context of colleges and universities were contacted to collect data using a purposive sampling technique that enabled researchers to rely on their judgment while selecting participants in the research study (Sharma, 2017). The reason for using the purposive sampling technique is that it

helps the researchers to select an appropriate and information-rich sample size as per their knowledge and judgment regarding the phenomenon of interest. The rationale behind using interviews as a data collection instrument is that it elicits information from research participants and provide in-depth insight regarding the topic of interest. For this research, data were collected in two stages; the first was the administration of a Google Form among the respondents who consented to participate in the study. The Google form collected the demographic information of the participants, such as age, gender, working experience, academic qualification, level of teaching, any certification, and time they spend on the computer. The second stage of the data collection was the interview questions' dissemination to each participant.

Nine (9) open-ended questions were administrated to each respondent exploring their understanding of Computer Assisted Language Learning (CALL), the scope of CALL, the challenges they face in using CALL, the contribution of CALL to the Professional Development of Language teachers, the outcomes of using CALL, their preferences, proper training of CALL, Apps, and tools they use and their experience of conducting assessment through CALL. For collecting answers from respondents, the WhatsApp voice note feature was used as it facilitated the researchers to listen to the recordings time and again to achieve clarity. On the other hand, this feature was equally feasible for the participants as they recorded their responses from their chosen places and time. After taking data each question was analysed and a table was developed containing codes from each response. Similar and same responses were grouped under broad categories to derive themes discussed in the subsequent section.

Data Analysis

The thematic analysis technique was used by the researchers in order to analyse the role of computer-assisted language learning on the professional development of language teachers. Castleberry and Nolen (2018) stated that thematic analysis is an important technique for analysing qualitative data and is often applied to textual transcripts such as interview transcripts. The reason for using the thematic analysis technique is that it enables researchers to closely interpret the data by deriving different themes regarding the role and benefits of computer-assisted language learning in promoting language teachers' professional development based on the perceptions and thoughts of the participants.

Ethical Consideration

Before the data collection process, formal consent from the potential respondents was sought. They were explained the aims and objectives of the study and were assured that the recorded data would only be used for the research and would not be shared with anyone. The participants' identities were concealed and most importantly, they were given the freedom to choose their time and place to respond.

Results and Discussion

For the current study, the researchers after a rigorous analysis of the data were convinced that the four themes were found: i) the impact of Computer Assisted Language Learning on the professional development of the teachers ii) challenges the teachers and learners face while incorporating CALL in their teaching and learning iii) CALL versus Traditional Methods and exposure to various cultures and accents iv) exposure to various cultures through CALL

Table 1
Demographic profile of respondents

Demographic Aspects	Profile traits (N=9)
• Academic Designation	• Lecturer (7) Assistant Professor (2)
• Age Range in Years	• 20 - 30 (2) 31-40 (2) 41-50(5)
• Academic qualification	• Postgraduate
• Teaching level	• Intermediate (6) tertiary (3)
• Teaching experience	• 0-10 years (3) 11-20 years (4) 21-30 years (2)
• Comfort using CALL	• Comfortable (8) uncomfortable (1)
• CALL certification	• Yes (2) No (7)
• Time spent on computer per day	• 6-10 hours (4) 0-5 hours (5)

Impact of CALL on the professional development of teachers

From the demographic data it was realized that 50 percent of the participants belonged to the age group of 41-50 and interestingly, researchers found positive responses from all participants about the positive impact of CALL on their professional development as all of them mutually agreed that the professional development of teachers is contingent on using CALL, as their teaching skills would improve resulting in their professional development. The idea of the development of teachers through Computer Assisted Language Learning CALL was fully supported by Sulemani, Sarhandi & Buledi (2017) who established the fact that the dire need in today's teaching era is to learn how to integrate technology effectively in the classroom and it is contingent to the adaptability of teachers with CALL. With the theme analysis, it can be noticed that CALL works to enhance language teachers' professional development and it is only possible when teachers regardless of their age are trained by their respective organizations and given opportunities to base their teaching approaches on emerging technological trends.

Challenges while using CALL in teaching and learning

Despite the participants' strong inclination towards incorporating CALL in English Language classes, they recorded their insecurities owing to the issues of power failure, lack of teachers' training opportunities, digital divide, and inability to access the resources. Respondents were asked about their comfort with incorporating Computer Assisted Language Learning in their teaching practices, the statistics revealed that 12.5 % of the participants are not comfortable using CALL in their classes owing to the reasons mentioned above. On the other hand, 87.5 % of the participants expressed ease in using Learning CALL in their English Language classes. To a great extent, the challenges and barriers reported by respondents were not directly related to the pedagogy rather they were external factors such as frequent load-shedding, backdated gadgets, and ineffective resources whereas few responses highlighted inadequate training of teachers as one of the challenges.

The respondents also showed their concern towards the responsibility of the organizations that they should take steps for teachers' training. Also, they emphasized organizing proper teachers' training sessions where they can be taught to cope with the issues such as browsing, handling technology, and assessment tools in order to use technology without any fear of glitches. School teachers continuously need support, trust, and assistance from the trainers, and authorities so that they can learn to integrate technology as an aid, not a threat (King & Stevenson, 2017). Nafissi, Estaji, and Marandi (2019) elucidated that teachers' training has now become a need of English teachers which helps them in building the courage to handle situations bravely.

CALL versus Traditional Methods

This is crucial to note that teachers who are above 40 admit the importance of Computer Assisted Language Learning, and show their willingness to incorporate the technology in their language class. When asked whether they are comfortable using Computer Assisted Language Learning in their language classes, 87.5% of the participants said that they were comfortable with teaching using computer-assisted language teaching methods. However, the question about the respondents' preferences for CALL over traditional methods received mixed responses. One senior respondent said that she mostly preferred traditional teaching because of her uncomfortableness with using CALL in her Language classes. Two of the respondents narrated that there should be hybrid methods due to the limited technical facilities provided to them. However, five respondents strongly recommended CALL because they found it helpful, interesting, and inductive.

The researchers in this regard infer that teachers above 35 years of age prefer the traditional method of teaching and the reason can be referred back to the previous theme which clearly indicates that proper prior training is helpful in eradicating the threat associated with using CALL and in harnessing ownership for this method among teachers. This is in line with the argument put forth by Ferrer et al. (2015) that online language programmes and tools are found to be effective in promoting ownership of teachers for their learning and addressing the desirability of language teachers for collaborative learning and online practice communities. The researchers concluded that their level of comfort with using Computer Assisted Language Learning depends upon teachers' handling of the resources. Also, teachers who are in favour of the traditional teaching methods should be provided a comfortable environment where they can share their issues and the solution should be provided as the new form of learning will reshape and restructure the teaching profession completely. However, how to accommodate and adapt the learning process more naturally is an interesting area of inquiry. According to a study at Rawalpindi Medical University, Noreen et. Al (2020) concluded that professional isolation is one of the weaknesses of the online education system. Whereas, the assessment procedures were changed and the emphasis shifted more to the psychomotor and soft skills.

Exposure to various cultures through CALL

Although no direct question regarding the exposure to various cultures through Computer Assisted Language Learning was asked of the respondents, an interesting element was noticed in their responses. All respondents advocated that the activities, worksheets, video, and audio resources used in the language classes promote cultural awareness among students. Also, they feel connected to other cultures when they are introduced to various cultures through online teaching. Subsequently, the teachers also feel involved with other cultures through multiple resources which is not possible in teaching language through conventional methods. This is in line with the idea proposed by Chen & Yang (2014) that the availability of the internet made it possible for teachers to utilize resources in order to create real-life situations in their language classes regardless of different cultural backgrounds and geographical distances. According to Liu and Shirley (2021), the effective integration of technology can be a great source of awareness of various cultures in the English Language classroom. The observations from the participants will be helpful in designing the curriculum in the future, in which topics can be included along with activities to be performed through Computer Assisted Language Learning (CALL). Consequently, teachers and students will be exposed to other cultures which can bring a significant impact on the learners' awareness of various cultures (Lomicka & Ducate, 2021).

The revolution of CALL has sprawled its wing all around the globe as underdeveloped countries are also striving hard to accomplish the goal of training teachers with the latest technologies in order to successfully implement CALL at various levels of education. Tafazoli, ómez Parra, and Huertas Abril (2018) argue that computer-assisted language learning and development allow teachers to adopt new pedagogical techniques that they can use for their professional development and learning and apply that learning in teaching language to the learners. Furthermore, it is evident that technology integration is essential for language teachers in order to enhance their professional learning and development (Dalal, Archambault, and Shelton, 2017). On the other hand, the challenges and confusion faced by English Language teachers while using Computer Assisted Language Learning CALL can be eradicated by organizing effective teachers training sessions by organizations on a regular basis so that teachers would be able to use and incorporate technology effectively in their language classes without going demotivated by this new trend in teaching and learning languages.

Conclusion

The importance of computer Assisted Language Learning CALL is an established truth of today's educational environment which not only enhances the effectiveness of advanced teaching methods, and learning capabilities but also opens up doors of an undiscovered world to students and teachers equally with a lot of innovations. Integration of CALL in language teaching practices in underdeveloped contexts like Pakistan is inevitable to broaden the horizon of teachers and learners and to bring them on par with other countries where successful integration of technology in teaching-learning practices is already producing desired results.

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