

Computer-assisted Language Learning in Pakistani Context During COVID-19 Pandemic

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ABSTRACT

The use of technology and contemporary methodologies has resulted in significant changes in the development and enhancement of education standards in the higher education system in the last decade. The pandemic of the Corona Virus (Covid-19) has had an impact on many sectors of life across the world, including economy, vocations, culture, schooling, etc. For the protection of students, most schools and institutions have been closed. Then, in order to keep education continuing, many schools and institutions turned to e-learning. However, in Pakistan, many lecturers/teachers and students are still unfamiliar with this teaching/learning method. This research study planned for investigating two Pakistani context universities, i.e., Mehran University of Engineering and Technology and University of Sindh's ESL on their teachers' attitude towards implementing and using CALL in their English language teaching, their present employments of CALL applications in their teaching and challenges they experience while executing CALL in their teaching to get a general picture of CALL usage in this particular setting. Data was collected through a teacher-based survey questionnaire webbed to 40 EFL teachers (n=40), and then it was analysed by SPSS. The questionnaire consisted of five-Likert items. Each item of the question consisted of sub-items and elements with the help of those elements which the researchers got an accurate picture of answers for their research questions. Findings revealed that ESL teachers of the concerned universities held positive perspectives towards utilising CALL in their teaching of English, and there were no noteworthy contrasts in teachers' perspectives that can be credited to gender or academic levels. They saw CALL as a facilitating tool in encouraging language learning, increasing their motivation level, and helping them acquire skills.

1. Introduction

Since the global spread of the Corona Virus (Covid-19), all sectors of the economy have suffered, and educational wins hands down. The pandemic of Coronavirus (COVID-19) has put over 1.5 billion university students in 185 nations in Asia under lockdown (Pham & Ho, 2020; Jamal, 2020). While learners remain at home, institutions, schools, and universities must continue to train them by using distance learning from institutions to their homes. In most nations, including East Asia and Southeast Asia, many higher education institutions are transitioning to online learning (Jamal, 2020; Rahman, 2020; Yarrow, 2020; Hayashi et al., 2020). Furthermore, two-thirds of these colleges say they need to move away from classroom instruction and toward e-learning. The COVID-19 epidemic, on the other hand, would most likely change our minds about how the sector can and should operate (Pham & Ho, 2020). The coronavirus (COVID-19) pandemic is causing fast innovation and the search for replacements to online learning at numerous institutions in most nations, particularly in

East and Southeast Asia (Jamal, 2020; Rahman, 2020; Yarrow, 2020; Hayashi et al., 2020). The Corona Virus outbreak is a chance to make the best of the circumstance (Jamal, 2020). There are numerous alternatives accessible in this difficult scenario, and teachers must select the best approach and apply it to educate their students.

The use of technology and contemporary methodologies has resulted in significant changes in the development and enhancement of education standards in the higher education system in the last decade. Most notably, the ongoing Covid19 epidemic has resulted in the closure of educational facilities and the implementation of social distancing methods, making delivery and imparting of education difficult and restricting interaction between social groupings and people (Singh et al., 2020). In such social and pandemic circumstances, educators and policymakers should create effective ways and means of communication between instructors and pupils; thus, contemporary technologies should be utilised to the fullest extent possible. It is well known that the

integration of technology in educational institutions and the workplace has resulted in an active learning process that incorporates face-to-face and other teaching-learning methods such as online technology (Asmari & Khan, 2014).

Technology has pervaded all aspects of our lives and made progressions in education for the most part (Kaid Mohammed Ali & Rashad Ali Bin-Hady, 2019) and in the field of language learning especially. In the field of language education, technology plays a very crucial role in developing students' motivation, autonomy, and finally, proficiency (Warschauer, 1996; Albirini, 2006; Alsied & Pathan, 2013; Golonka et al., 2014; Kılıçkaya, 2015; Grzeszczyk, 2016; Lai, Yeung & Hu, 2016). It not only provides help and support in classroom processes, but language learners can also take benefits from it outside the classroom as well (Ahmed, 2019). Learning has altered as a result of the internet and other modern technology—thousands of instructors worldwide regard computer-assisted learning as a utopia that will provide only promising benefits. Implementing computer-assisted language learning (CALL) in EFL classrooms may be difficult.

Several researchers, Alkahtani (2011), Chow and Ge (2011), Hussain, 2014, have carried out studies to look at CALL's effects, issues, and effectiveness in EFL classrooms. According to Afrin (2014), computers are becoming an increasingly important element of every school. The Internet and CALL are not the only new methods of education that have changed the way things are done in the past.

CALL stands for Computer Assisted Language Learning, and it is a branch of study that focuses on the use of computers in language learning by definition. There are other phrases that sound similar to CALL. Several of them will have been superseded by newer, more current words or no longer regular usage (Beatty, 2013). Therefore, it is vital to include these since some of this terminology may appear in research papers, and the word CALL is not usually used to refer to innovation language development. In North America, as an instance, the name CALL (Computer-Assisted Language Instruction) was widely used. Computer-Assisted Learning (CALL) is a word that refers to any type of computer-assisted learning.

The assimilation at the departmental level is indeed the main engine. Department policies should be written in such a way that they enhance efficiency. The integration of instructors is the correct process. Teachers should get the training and skills to utilise CALL in EFL classes. CALL adoption in ESL classrooms should improve learners' learning results and make it easier to fulfil the requirements of both students and teachers. Nonetheless, there is an issue with instructors' attitudes. Teachers and administrators have long been urged to incorporate

computers and the Internet into their lessons, but relatively few have reacted effectively,' says Naeini & Duvall (2012).

Regardless of instructors' dispositions, several other obstacles stand in the way of CALL's successful adoption in EFL classes. Financial constraints, a lack of hardware and software, and theoretical and technical expertise are all examples of these hurdles (Lee n.d.). The significance of combining computer-based learning languages with face-to-face learning is stressed by Jager et al. (2014).

The use of computer-assisted language learning (CALL) has risen rapidly with age, and various research on the function of computers in learning English as a second or foreign language in the twentieth and twenty-first centuries have been undertaken. Recent studies (Ali, & Yacob, 2010; Ercetin, 2010; Kilickaya & Krajka, 2010, AbuSeileek, 2011, AbuSeileek, 2012) have demonstrated increased enthusiasm in employing computer systems for foreign language teaching and study due to the introduction of the World Wide Web and multimedia. Around the world, computer technology has played a significant part in the teaching and learning process.

Classroom assisted language learning (CALL) has become a fundamental norm in language learning where computers (and other such programs and applications) act as assistants of humans during classroom practices. Especially in large classrooms, technology can reduce the number of challenges that teachers face due to a greater number of students than they expect to have for efficient teaching "A large class can be any number of students, if the teacher feels there are too many students for them all to make progress" (Baker & Westrup, 2000). There is a wealth of projects, websites, CDs, recordings, talks and e-books that have been intended for learning English as a second and foreign language in our advanced age. Web innovation has likewise given EFL students and educators free access to a large number of these proficient projects that help them a great deal in building up their language and empowering increasingly viable language learning and teaching.

Teachers' attitudes towards implementing CALL in ESL large classrooms is one of the principal factors impacting the implementation of technology in classroom teaching (Daud, 2006) and "a significant indicator of the utilisation of new innovations in the educational settings" (Albirini, 2006) as such attitudes tell whether the teachers' accepts using CALL in their teaching or not. In Pakistan, improvement in EFL instruction necessitates administrators providing EFL instructors with the most up-to-date computer equipment (Farooq & Soomro, 2018). Multimedia and PCs with extra online apps may be useful for English instructors in this regard. Teachers who are proficient in the use of technology equipment may be a strong

source of change in the educational system by promoting and using these powerful technologies in English language instruction in Pakistan. In today's globalised world, governments and officials are sometimes obliged to embrace and borrow technical breakthroughs from other nations (Rogers, 2015). In Pakistan, the government and policymakers occasionally desire to improve this condition, but political instability prevents the system's advantages from being realised (Farooq & Soomro, 2018).

English instructors in Pakistan are divided into two groups: (1) those who have no interest in utilising computers in language teaching and prefer to stick to traditional techniques, and (2) those who wish to utilise computers to innovate EFL teaching. From primary through secondary school, all instructors receive regular computer training so that they may upload testing or assessment reports to the management online. Therefore, the importance of using computers for educational purposes is completely overlooked. At the secondary level, EFL instructors are not given the same opportunity to participate in district-sponsored computer training. However, because of the pandemic epidemic in the Wuhan chain, which has expanded around the world as well as in Pakistan, officials and instructors in Pakistan must use computer-assisted language learning classrooms instead of physical classrooms. This study aims at exploring teachers' attitudes towards implementing CALL in language teaching in the context of Pakistan. In this setting, there is a requirement for such an investigation as usage of technology in classroom settings is still at its support at universities of this province, and it is still dependent upon teachers' interest and experience.

Many research studies such as Haider, 2013, Dzakiria 2019, Dzakiria 2020, have recommended the importance of CALL usage in language teaching and learning as a facilitative device, but no such detailed study has been done in the context of the Sindh province of Pakistan. Similarly, this study focuses on the usage of CALL in large ESL classes that also makes it a unique and interesting approach. This study focuses on investigating the teachers' attitude towards implementing computer-assisted language learning in a large classroom and the use of CALL in large classes at the Pakistani university level in Pakistan. In Pakistan, Sindh, university teachers use CALL in their classes. The hypothesis for this study was that in the universities of Sindh province, teachers' attitudes towards the application of CALL in large ESL classrooms are high and positive. There exists a gap between teachers' attitudes towards usage of CALL and their actual practice and usage of such applications, and the reasons behind this gap could be explained with the help of various factors. There is a correlation between teachers' computer competence and their uses of computer technology in their teaching in large classes.

Many Asian instructors find it difficult to use technology (Ta, 2020), and there are issues with teachers' and students' perceptions of e-learning (Yarrow, 2020). Many professors and teachers are still wary of technology and e-learning. The majority of today's educational activities are still based on conventional approaches. In India, educational institutions are now focused exclusively on traditional learning techniques, according to Dhawan (2020). They use the traditional classroom setup with face-to-face talks. In Malaysia, Rahman (2020) stated that some instructors were hesitant to use the learning management system at all.

Computer technology is extremely important for EFL learning, yet most teachers are unable to use computers for language instruction. Teachers have problems learning to use new technologies in language instruction in today's modern technological environment. Teachers are being educated on adopting innovative approaches in the teaching of English by the government and non-governmental organisations (NGOs). This is a particularly pressing issue at Pakistani institutions.

Echoing the above explanation, this current research is somehow noteworthy since it focuses specifically on teachers and provides insights into teachers' attitudes, implementation, and usage of CALL. Conducting this research allowed me to have a personal understanding of how instructors feel about bringing technology into the classroom. According to Djamarah (2011), lecturing is a style of instruction in which knowledge or a description of subject material, and even the dilemma, is conveyed verbally. This technique is presented to the students through a straightforward narrative or clarification. Due to COVID-19 implementation, and use of technology in the classroom is favourable. So, the goal of this study was to add knowledge of teacher's attitude, implementation and usage of Computer Assisted language learning.

Moreover, this study intends to explore the attitudes, implementation and use of university teachers of Sindh province of Pakistan towards integration of CALL for ESL teaching and the challenges that they face. However, it is limited to two major universities of the province; Mehran University of Engineering and Technology and the University of Sindh. The study aims to record the opinions of ESL teachers working at the concerned universities. However, there are several limitations, such as instructors' lack of expertise, outdated software, and teachers' need for sufficient training before utilising CALL.

2. Literature Review

CALL stands for "the quest for the research of computer applications in language teaching and learning" (Davies et al., 2012). According to Tafazoli,

D., & Golshan, N. (2014), fast advances in computer technology prompted linguists and literary researchers to employ computers in the late 1960s and early 1970s, laying the groundwork for the use of computers in language teaching and learning. CALL (Computer Assisted Language Instruction) became popular in the 1980s, replacing CALI (Computer Assisted Language Instruction), a teacher-centred rather than a student-centred method. CALL expanded its reach by incorporating a communicative approach into various new technologies. It now involves substantial use of multimedia and Internet resources, as well as highly interactive and communicative assistance for listening, speaking, reading, and writing abilities (Davies et al., 2012).

CALL has been classified into three primary techniques, according to Warshauer and Healey (1998). These techniques were used in different ways and from different viewpoints. The first method was behaviourist CALL, mostly utilised for grammar lessons and translation testing. Bulut (2010) stated that behavioristic CALL usage, which began in the 1960s and 1970s, was focused primarily on students' behaviour and academics via repetition. The communicative use of CALL, the second strategy, pushed students to consider the proper use of form, which distinguished it from the behaviourist approach. Integrative CALL, the third strategy, focuses more on employing technology to encourage and facilitate actual language use.

Even if the instructor is not there, computers may undertake part of the teacher's work and give valuable help to the student (Pennington, G. (1994). According to Yasmin & Islam (2018, p.19), an English language instructor must have a thorough understanding of all aspects of English literature and language, such as grammar, syntax, and pronunciation, as well as ICT abilities. English Language instructors could use commercially available CALL software, according to Levy (1997), but it was preferable to pick the material and customise it to the learners' requirements. The instructor must therefore become an author or a teacher-programmer in this situation. Using authoring tools like Author ware (Macromedia) and Tool book, ELT teachers may tailor chosen content and exercises to the needs of their pupils (Asymetrix Corporation). In this light, internet connectivity was deemed necessary to assist and enhance CALL teaching and learning by providing e-mail and file transfer services.

Until recently, Computer-assisted language learning (CALL) has become a subject of pertinence generally to those with a unique enthusiasm for that area (Levy, M. (1997). Recently, however, computers have become so common and widespread in schools and homes, and their uses have extended so drastically that most language instructors should now consider the implications of computers for language learning. The most ideal approach to meet the above-mentioned

needs is to utilise Computer-helped Language Learning in light of the fact that there are a ton of advantages of it. Following are the major advantages of CALL:

- a) Easy access to authentic, up to date, and unlimited number of materials and resources
- b) Students' motivation increases as they get bored of traditional teaching and books
- c) Greater interaction through web-based platforms
- d) Global understanding becomes easier
- e) It promotes individualisation and autonomous learning in large classes where the teacher cannot provide individual attention to every single learner
- f) Repeated exposure to materials, practice, and drilling becomes easier
- g) Access to non-judgmental feedback
- h) Access to materials on an individualised basis
- i) More flexibility in classroom methodology
- j) A new role to teaching materials

However, barriers also come along with CALL applications that can act as hindrances in the path of teachers and learners. If the challenges are detected along with the reasons, they can be eliminated through efforts (Agarwal). The following could be the most common challenges:

- a) Availability of computer hardware and software at the institutions
- b) Lack of technical and theoretical knowledge of teaching staff and students
- c) Acceptance of the technology
- d) Financial barriers
- e) Lack of knowledge of its benefits
- f) Lack of interests
- g) Lack of time and awareness

Cakir (2006) has underscored the significance of utilising innovation and technology in language teaching regarding the incredible impact that various media materials have on language teaching. He alluded to the critical job of recordings and visual materials on creating open aptitudes as such procedures help understudies contextualise what they have learned. He suggested numerous exercises for video implications in large classes. He stressed that such video methods create students' abilities and skills to speak and listen, giving more chances for the practice of target language through repetition of drills and replay. He included that with videos, large classrooms become more intrigued and charming. In Pakistan, large classes are not in the classroom area-wise, but it is about the insufficient number of students.

Many studies have stressed the relevance of teachers' attitudes in integrating technology for educational purposes, particularly in English language education, since such views indicate whether or not they are willing to adopt such technology in their

teaching. (Gilakjani & Leong, 2012; Kim, Y-M., 2002; Qasem & Viswanathappa, 2016). However, none of these research studies focused on university-level teachers' attitudes, implementation in Sindh, Pakistan.

Hu and McGrath (2011) conducted a study on Chinese tertiary teachers' attitudes regarding CALL usage in language classrooms. The data was conducted through many sources like teacher questionnaire survey, observation of classrooms, and focus groups, as well as semi-structured interviews with teachers and students. The data revealed that teachers had positive attitudes and enthusiasm towards the integration of CALL applications in teaching processes. However, there were many challenges and barriers that existed, such as inadequate support in terms of insufficient ICT facilities and CPD opportunities, the domination of traditional ELT, and limited CALL knowledge and skills. Al-Menei will investigate the impact of CALL on Saudi students' English writing skills. Some useful outcomes were discovered in paragraph writing and grammatical correction and participants were asked to greatly enhance their skills in this area. (Al-Menei, as cited in Al-Mansour and Al-Shorman (2011).

Similarly, Saglam and Sert (2012) have investigated the perceptions of nine ELT teachers with M.A TEFL degrees towards utilising CALL related innovation in language teaching. Their data were gathered through semi-structured interviews, open-ended surveys and field notes. Findings have demonstrated that teachers held positive perspectives about CALL usage in learning. They likewise accept that their students also held inspirational and positive attitudes towards using CALL for learning the language. In any case, they too recognised the difficulties confronted and accentuated the requirement for CALL preparing for both teachers as well as students. The investigation concluded that teachers utilise technology to teach academic and linguistic skills using an integrated skills approach, encourage students to play a role in the construction of knowledge, expose students to long-lasting learning abilities and systems, provide food for various students who have diverse learning styles, discover and make educating materials, create aptitudes through the introduction to existing on the web sources and make a propelling condition that is helpful for learning.

Moreover, Golonka et al. (2014) have evaluated more than 350 studies to check the viability of technology usage in second language learning, focusing specifically on the kind of technology and its effectiveness. It was revealed from the review that utilising technology has different degrees of effectiveness in language learning. The review also uncovered that a few studies had supported the idea of using automatic speech recognition for learning and

improving pronunciation and chat in increasing language inputs in terms of the amount of language produced by the learners and its complexity.

In Khartoum, Sudan, Saeed (2015) researched the impact of computer technology on the teaching performance of Sudanese English language instructors. He gathered the information using a questionnaire and analysed it with SPSS. The majority of EFL instructors in Khartoum state had good attitudes regarding employing computer technology in their EFL courses, according to his findings. In Pakistan, particularly in Sindh Province, less research on call have been undertaken, therefore this study will assist in bringing new perspectives of teachers' attitude towards Call implementation in quantitative methodology.

Khawaji (2016) has inspected Saudi teachers' perspectives towards implementation of CALL in English in large ESL classes at Saudi universities, current practices and the individual and expert qualities. Data was gathered through a study survey given to English teachers of Jazan University. It was revealed that teachers in any case of their gender and teaching experience accept that reconciliation of CALL is crucial for the quality of education, proficiency level of technology use has expanded since 2000 and coordination of CALL in university classrooms has reached a more refined stage. A greater part of teachers has likewise underlined that CALL is an amazing innovation that will, in general, improve their profitability, proficiency and viability.

Five EFL instructors' perspectives of the effects of CALL lesson study on their professional progress were explored by Nami, Marandi, and Sotoudehnama (2016). The study's findings revealed that instructors who took part in the study valued instructional approaches and peer observation for furthering their expertise.

Guan, Song & Li (2018) successfully investigated and reviewed the possible benefits of using computer multimedia in large ESL classrooms. They revealed that making use of multimedia in large ESL classes make them more charming, enjoyable, and a fun place for learners. It was also shared by them that multimedia-assisted ELT in large classrooms has the potential to encourage learners to participate in learning activities more, optimise their English class environment, bring improvement in their speaking and listening abilities, create their own ideas in the target language, and enhances their enthusiasm for communication.

Kuru Gönen (2019) also conducted a study that aimed to guide managing pre-service teachers in integrating CALL and other such technology in language learning large classes. The study explored the attitudes of both pre-service teachers and their students regarding CALL enhanced lessons. Results

uncovered that the concerned teachers and their students had positive attitudes towards incorporating CALL in large ESL classes. It has additionally been indicated that CALL-enhanced classes bring more improvement to students' English language abilities, create a motivating learning atmosphere, encourage dynamic cooperation, and help teachers in fitting their exercises to accommodate their students' needs and interests. This study is different as in Pakistan, many lecturers/teachers and students are still unfamiliar with this teaching/learning method. This research study planned for investigating Pakistani context universities such as Mehran University of Engineering and Technology and University of Sindh's ESL teachers' attitude towards implementing and using CALL in their English language teaching, their present employments of CALL applications in their teaching and challenges they experience while executing CALL in their teaching to get a general picture of CALL usage in this particular setting

Computer technology is being utilised to integrate the education system with the newest technological advances in the developed nations of Europe, America, and South Asia (Tai, 2012). Researches on CALI have been done in the previous two decades to enhance students' oral and written abilities. Chow and Ge (2011) in Taiwan, and Charmonman (2014) in Thailand, also Machnaik (2012) in Singapore, for example, have looked into gender-based attitudes and the influence of age and experience on utilising computers in EFL classes. Researchers in Pakistan investigated the efficacy of utilising computers in EFL classes and discovered gender-based attitudes about computer technology at the elementary and university levels (e.g., Hussain, 2014; Lodhi et al., 2019).

Traditional teaching methods will change day by day, and pupils will appear to be more engaged. In their classrooms, teachers employ computer technology for instructional objectives (Edwards-Groves, 2012). Mobile phones, tablets, and smartphone technology, among other things, have ushered in new ways of receiving and giving knowledge. Educational technology has become more complicated but also more beneficial in recent years (Levy, 2009). The use of educational technology provides an engaging approach for students to communicate with one another via online chat and discussion in order to achieve their educational goals (Gill, 2011).

2.1 CALL in Pakistani Context

Pakistan is a country where fundamental human needs remain unmet. It is still considered to be a developing country. This situation is comparable in schooling, where classrooms lack fundamental learning facilities. There are no appropriate classrooms or classroom environments in rural locations, and professors educate kids under trees or

in open fields. Five years ago, even in major cities, technology such as multimedia devices, the internet, and computers was seldom found in classrooms, much alone in language classrooms. English language study, but on the other side, has always been a form of social evolution, and it is "AQLEES HEELS" for everybody in Pakistan (Ali, & Gulzar, 2016). This is due to the fact that traditional learning techniques, which lack facilities and new trends, have made it difficult for pupils to learn English. People in this area wish to learn English, which they are unable to do so since Urdu and English have different syntactical properties. Apart from societal pressure, poor teaching methods, and a lack of resources, learning English has become impossible.

The problems of Computer Assisted Language Teaching in a private sector university to teach English as a communicative language in the context of university students' lack of communication skills are examined in this case study. The research is part of an endeavour to prepare university students to be global citizens in light of English's standing as a lingua franca. The project addresses a gap in ELT research by using current technologies in English language teaching in Pakistani institutions to promote Communicative Language Teaching (CLT). The major study topics are concerned with the difficulties that English language instructors have when delivering the course Communication skills in BS (Hons.) classrooms without access to current technologies. Inspections of BS (Hons) second-semester classrooms and interviews with English language teachers at a private institution are among the study instruments. The study outcomes show that English should be taught as a living language rather than a dead language (Yasmin, 2018)

The study's main goal was to see how three different instructional approaches for teaching mathematics affected poor, medium, and high achiever elementary school pupils. For the education of three chapters of a six-class mathematics textbook, three techniques were used: traditional instruction, computer-assisted instruction (CAI), and instructor supported mathematics learning software (Integers, Algebra and Geometry). The materials of these three chapters were used to create interactive software. A male and a female school were chosen from each of the two urban and rural schools. Seventy-eight pupils were chosen randomly from each of the four schools and placed in one of three groups. Students were classified as low, moderate, or high performers based on their pre-test results. A follow-up test was performed after the therapy. The kids' scores were evaluated, and it was discovered that the teacher aided them. Compared to CAI and other teaching methods, the mathematics instructional technique achieved higher scores.

The study examines the limitations and challenges that Pakistani ELT teachers experience while implementing CALL in their classrooms. In the previous two decades, technological progress has resulted in apparent changes in every aspect of life. According to a scholar, people are increasingly attempting to include technology-based, creative, and supporting language learning methods in the educational sector and the language learning situation. The spirit of CALL integration is always the instructor who employs different technological approaches to promote unique ideas and interests in students. The infusion of technology-based learning is quite a new phenomenon for teachers as well as for students that is becoming popular in Pakistan. The most significant distinction is that the CALL school environment is student-centred rather than teacher-centred. This article will aid in identifying the challenges and obstacles that Pakistani ELT teachers are encountering when implementing CALL in their language classes (Ali, 2016).

Traditional teaching methods will change day by day, and pupils will appear to be more engaged. In their classrooms, teachers employ computer technology for instructional objectives (Edwards-Groves, 2012). Mobile phones, tablets, and smartphone technology, among other things, have ushered in new ways of receiving and giving knowledge. Educational technology has become more complicated but also more beneficial in recent years (Levy, 2009). The use of educational technology provides an engaging approach for students to communicate with one another via online chat and discussion in order to achieve their educational goals

As a result, computer expertise is being expanded in many areas of life in response to the growing demands of both instructors and pupils. Teachers and students must decide which technology is most effective and beneficial. Because mobile devices may be used outside of the classroom, computer technology has also transformed learning environments (Abdollahpour & Maleki, 2012). It may be beneficial to instructors and students at Pakistani universities in developing four language skills: speaking, writing, reading, and listening. Because there is a lot of internet material for religious education, knowledge may be conveyed by using computers and other educational instruments to teach English as a foreign language from online data sources. For both professors and students at Pakistani institutions, learning using computers and educational technology offers several advantages.

Although Pakistan is not as developed as other European nations, its educational system is not sophisticated enough to fulfil the needs of international education standards. In this environment, incorporating sophisticated technology such as computers into the teaching of English is a difficult

task, particularly in Pakistan's educational institutions. Furthermore, there are several difficulties with the way computer-assisted language learning is performed in Pakistan. For personal and environmental concerns, teachers avoid using technology in the classroom. On the other hand, teachers with positive views are working hard to implement and use technology in the classroom at the university level.

In Pakistan, Bhatti et al. (2014) conducted a study to investigate CALI patterns among English language instructors in the Lodhran District, located in the southern Punjab province. His results indicated a shortage of instructional technology as well as load shedding difficulties in Pakistan's Higher Secondary Schools. One of the more serious concerns identified was the lack of CALI equipment. Another study by Haider (2013) and Hassan and Dzakiria (2020) looked into teachers' perspectives and attitudes regarding CALI in Pakistani Higher Secondary Schools. Teachers were also motivated to employ instructional technology, and CALI should be implemented in religious schools, according to the findings of this study. The majority of the teachers believed that using CALI would improve their productivity and help inspire their students. Hassan and Sajid (2013) and Hassan and Dzakiria (2019) also looked at the efficacy of using CALI in the classroom and the issues that English language instructors encounter in Pakistan's Punjab province. The majority of instructors were interested in incorporating CALI into their teaching and learning, according to the findings of this study. The author needs to focus on Computer-assisted language learning in Pakistan during the pandemic.

2.2 Research Gap

Researchers have discovered CALL in many situations through diverse investigations. Many of them are concentrating on various aspects of their own settings. For example, Hussain (2014) and Lodhi et al. (2019) focus on gender-based computer technology views at the primary and university levels. Gender-based variations in attitudes, as well as the influence of age and experience on utilising computers in EFL classrooms, have been studied by Chow and Ge (2011) in Taiwan and Machnaik (2012) in Singapore. However, none of the studies focused on CALL implementation and used teachers' attitudes and challenges in large classes during COVID-19 outbreaks in Sindh province universities in the Pakistani context.

3. Method

This study used descriptive statistics are a series of short descriptive coefficients that describe a data set, which might represent the entire population or a sample of the population. Measures of central tendency and measures of variability are two types of descriptive statistics (spread). The mean, median, and

mode are examples of central tendency measurements, whereas standard deviation, variance, and minimum and maximum variables are examples of variability measures. In this study, the descriptive method is used at data from students at university in Pakistan during the Corona Virus pandemic lockdown (Covid-19). During lockdowns due to the Corona Virus pandemic, all university instructors were "forced" to utilise an online learning system. For two weeks before the Covid-19 epidemic, the second semester of the Academic Year 2019-2020 was held in face-to-face classes. Due to the lockdowns at colleges and schools around the country, all professors tried to establish e-learning, despite the frustrations (for the lecturers). Descriptive statistics summarise the information at hand using figures such as mean, median, and so on to make the information easier to comprehend. It does not need any extrapolation or inference beyond what is already known. This includes descriptive statistics are simply a description of the available data (sample) and are not dependent on any set theory.

To examine data from instructors at a university in Sindh, Pakistan, that had been placed under lockdown due to the Corona Virus. All university instructors were "required" to implement an e-learning system

during the pandemic. For two weeks before the Covid-19 pandemic, the first semester of the Academic Year 2019-2020 was held in face-to-face classes.

3.1 Sample of the Study

The participants of this study are 40 (n=40) ESL teachers belonging to two different universities of Jamshoro; Mehran University of Engineering and Technology and the University of Sindh. In the Pakistani context, CALL studies were mostly conducted from Punjab province, so the researcher for this study was from Sindh province. All the 40 ESL teachers were selected through random sampling to participate in this study based on their availability and willingness to participate in an online survey questionnaire. In these two universities, approximately 50 teachers are available in Humanities faculty, so the researcher selected these two faculties based on the topmost faculties where every student wants to get admission and learn. The researcher chose Jamshoro as a site for their research because less research has been conducted from this reign on the Basis of CALL in large classes.

Table 3.1 Qualification of Gender Cross tabulation Count

Qualification	Male	Female	Total
PhD	2	1	3
Ms/M.phil	4	3	7
M.A	6	7	13
Bachelors	8	9	17

This table questionnaire was sent to university instructors over the internet, and those who responded are listed below and distributed according to their gender.

3.2 Data Collection

To collect data for this study, a five-item Likert scale was used by the researchers. The teacher-survey questionnaire has been taken from the study done by Ahmed, Qasem & Pawar (2020). A questionnaire survey was used to conduct the research. Furthermore, for those who did not want to fill out the questionnaire, a personal explanation was used. It was simple to pick the approach that was most suited to my study job by comparing my research objectives with the strengths and weaknesses of each method.

3.2.1 Research instrument

However, the questionnaire has been adapted (some changes were done to make it relevant for the current study). The first section of the questionnaire aimed at digging personal information of the participants, i.e., gender, affiliation, etc. the second section aimed at investigating the attitudes of ESL

teachers towards CALL usage in their large classes. It consisted of eight items because these eight items are subdivided into other four to five elements, and these eight items give us answers to the research objective. These eight items are in the form of a 5-item Likert scale (where strongly agree = 5 and means a highly positive attitude and strongly disagree = 1 and means extremely negative attitude). The third section aimed at digging out information about the possible challenges that the teachers face and the factors/reasons behind them, and it consisted of seven items. The fourth and final section of the questionnaire aimed at exploring the extent to which the concerned ESL teachers use CALL in their large classrooms, and it consisted of 6 items.

3.2.2 Administration of Questionnaire

The questionnaire was webbed online through Google Drive to the EFL teachers of the concerned universities. It was shared with so many teachers as possible through what are groups of the universities, personal WhatsApp and e-mail contacts. Eighty-one teachers managed to respond to it. A pilot study was done pilot to the process of data collection. The

questionnaire was sent to 3 Professors at the University of Sindh, Mehran University, and Sindh Agriculture University Tandojam respectively. They were requested to give their opinions about whether the questionnaire is valid and can achieve the study's objectives. Based on their comments and recommendations, changes were brought in it.

3.2.3 Reliability and validity

After validating the questionnaire by three professors, the reliability of the questionnaire was also checked through a pilot study. A pilot study was done by sending the questionnaire to 15 ESL teachers of the University of Sindh and Mehran University, and they were asked to fill it and respond to it. The questionnaire showed high reliability according to Cronbach's Alpha reliability statistics, as shown in table 3.2.

Table 3.2 Reliability

Case Processing Summary			
		N	%
Cases	Valid	15	100.0
	Excluded(a)	0	.0
	Total	15	100.0

In table 3.2, the pilot study number of participants was shown.

Table 3.3 Reliability Scale

Reliability Statistics	
Cronbach's Alpha	N of Items
.646	21

In table 3.3, the Cron Brach alpha value was calculated using SPSS software to analyse the entire questionnaire and all participants' responses in order to determine the reliability and validity of the study instrument.

4. Findings

The total number of pupils that answered the questionnaire survey was 40.96 per cent (n=38) of these instructors who had used computer-aided language learning (CALL) in the classroom during the Corona Virus (Covid-19) Lockdown period, whereas 4% of teachers had never used CALL in the classroom. According to the quantitative data, the following were the reasons behind 4 per cent of

students (n=53) not using the university's e-learning system. For starters, some students could not afford the e-learning system. They lacked the necessary resources to study using an e-learning system for technological devices such as cell phones, laptops, iPads, or desktop PCs.

After processing the data by SPSS, findings showed that responses of 40 teachers were valid; 12 male and 28 female teachers belonged to two universities, the University of Sindh and Mehran University of Engineering and Technology. They also held different Academic Degrees, i.e., Bachelors, M.A, MS /M. Phil, and PhD in English literature and linguistics.

Table 4.1 General details about participants

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Gender	40	1.00	2.00	1.7000	.46410
Teaching	38	1.00	2.00	1.3684	.48885
Qualification	39	1.00	4.00	2.7436	.96567
Experience	40	3.00	5.00	4.4000	.81019
Valid N (listwise)	37				

As far as instructor's demeanour towards utilising CALL in enormous classes ESL educators are concerned, findings revealed that instructors were having uplifting mentalities as the greater part of the things are scored more than 4.00 focuses and by and large aggregated mean equivalent is 3.8462. Responses also revealed that teachers believe that CALL has been becoming one of the handy tools to

facilitate the process of language learning in large classrooms. They believe that usage of CALL in ESL classrooms could motivate learners to participate in classroom activities, save time and energy of teachers, helps in making use of authentic English language input in the classroom, and helps in making students autonomous learners and in the acquisition of important skills of English language.

Table 4.2 Teacher's attitude towards using CALL in classroom

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Facility	40	1.00	5.00	3.8000	.88289
Motivate	40	1.00	5.00	3.6750	1.04728
Save	40	1.00	5.00	3.9000	.92819
Favour	40	2.00	5.00	3.9000	.70892
Scared	40	1.00	4.00	2.4000	.81019
Familiar	40	1.00	5.00	3.5250	.98677
Replace	40	1.00	5.00	3.4000	1.03280
Using	40	2.00	5.00	3.7500	.80861
Valid N (listwise)	40				

As to confront difficulties utilising CALL in large classes, teachers' reaction shows that they utilise CALL up to the degree of 3.8 out of 5. The data also revealed that no such gap existed between teachers' motivation and likeness about the usage of CALL in large classes and their actual use of it. The results also indicated that ESL teachers' perception of CALL and their usage of CALL is not affected by their genders;

both of the genders seem to have almost equal attitudes towards it. Finally, there is less hole in the middle of educators' disposition anchor challenges looked at by instructors while utilising CALL in enormous classes. Most of the teachers also denied the idea that the thought of integrating CALL in large classes scares them.

Table 4.3 Challenges used by teachers while using CALL in large classrooms

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Knowledge	40	2.00	5.00	3.8750	.82236
Training	40	1.00	5.00	4.3000	.88289
Willingness	39	1.00	5.00	3.7179	.94448
Fund	38	2.00	5.00	4.1053	.79829
Time	39	2.00	5.00	3.0769	.95655
Implementation	40	2.00	5.00	3.4250	.98417
Motivation	40	2.00	5.00	3.4750	.98677
Valid N (listwise)	38				

In this section too, most of the participants gave helpful feedback. As the researchers came to know that lack of teacher training was the biggest challenge that acts as a hindrance in the path of implementing

CALL in large ESL classes. Similarly, they showed that CALL does not seem to be or act as time-consuming.

Table 4.4 Teacher's use of call in large classes

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Use	40	1.00	5.00	3.1750	1.15220
Integrated	40	1.00	5.00	3.6500	1.18862
Design	39	1.00	5.00	3.4359	1.16517
Web	40	1.00	5.00	3.6000	1.05733
Enjoy	40	1.00	5.00	3.5000	.96077
Help	40	1.00	5.00	3.5250	1.03744
Valid N (listwise)	39				

The collected data shows that the majority of teachers have integrated or at least want to integrate CALL in their large ESL classes. They believe that CALL can totally act as a help to teach the English

language effectively and make classroom practices enjoyable and fun. However, data shows that designing CALL applications cannot be an easy task.

Table 4.5 Implementation of CALL

	N	Minimum	Maximum	Mean
Internet knowledge	10		40	3.6000
Online teaching	10		40	3.5000
ICT system	10		40	3.4359
Valid N				

The collected data show that Participants stated that few members of the upper class found it easy to use the internet and teach students online using ICT systems such as ILM software, Teams software, and Zoom software; however, because Pakistan is a backward country, network availability is limited in deserted areas and small villages, making the implementation of computer-assisted language learning in large classrooms difficult.

5. Discussion

The study findings have revealed that the ESL teachers of Mehran University of Engineering and Technology, Jamshoro, and the University of Sindh, Jamshoro, had positive attitudes towards the integration of Computer Assisted Language Learning (CALL) in their large classes. They believe that using CALL in large classes is highly effective for language learning and is very beneficial, it acts as a facilitative tool for ESL learning and teaching, helps in making students able to communicate in English, helps students in becoming more motivated autonomous beings, and saves teachers' time as well as energy.

5.1 Teacher's attitude towards integrating CALL

In Pakistan Sindh Teachers having positive attitudes and motivating students to use CALL as a tool to facilitate the process of education in large

classes is not enough, and it cannot guarantee that CALL can be implemented effectively just by having such beliefs. Many other factors are important to consider while integrating CALL in large classes. Among these factors are the challenges and the reasons behind the challenges, which the responses have highlighted and responded to in the section of the questionnaire where they were asked about the factors that act as hindrances in the path of usage of CALL. Among these factors is the lack of CALL training available for teachers as well as students, lack of knowledge, willingness, time-consuming nature of CALL, complicated nature of CALL, and lack of Funds. The study also tried to investigate whether there was any difference in males and females in their attitudes and usage of CALL in their large ESL classrooms and revealed that no such difference exists. It suggests that CALL is not influenced by any particular gender, rather, it is affected by lack of knowledge, training, and funds, and these things are pivotal to making CALL an important part of large ESL classrooms.

While on the other hand, Teachers' attitudes are seen to be a crucial determinant of how new technologies are used in educational contexts. As a result, their views regarding computers can have a significant impact on whether or not technology is accepted and used in education in general and language instruction in particular. Many instances of

student voice reports may be found in the literature; however, there is not much research on instructors' perspectives regarding CALL. The purpose of this study was to see whether there were any variations in views between English and Russian language instructors when it came to adopting CALL into their classrooms. A total of 53 English instructors and 52 Russian language teachers took part in the research. They were invited to complete a survey about E&L instructors' attitudes regarding CALL. Using SPSS 22, the acquired data were analysed using an independent sample T-test (Ahmadishokouh & Samadi, 2021)

So, it could be generalised from the collected data that in order to integrate and implement CALL in the large ESL classrooms of the universities which are a part of this research, there is a crucial need to deal with the challenges that tertiary EFL teachers encounter and to eradicate the factors that act as a base towards these challenges (i.e., less training, fewer funds, complexity in the implementation, etc.). Providing internet connection to English departments and libraries, providing language labs and CALL tools, training EFL teachers and students on computer skills and on how to use computer technology for language teaching and learning purposes can be key factors towards implementing CALL in English language teaching to enhance English language learning and develop students' communication competence in English.

5.2 University Teachers using CALL

These problems that act as a hindrance in the path of making CALL a useful part of large ESL classrooms of universities can be removed if proper training. Guidance and resources are made available for both teachers as well as students. Teachers were divided into two groups: those who were older in age and experience and those who were younger, less experienced, and more enthusiastic about teaching. Young teachers were using technology in their classrooms as much as possible, and it was simple for them to understand and learn CALL and then apply it in the classroom. In contrast, older teachers face many difficulties in learning CALL because they are less experienced with technology and slow learners who take a long time to learn.

Mahdi (2013) discussed technological, educational, interpersonal, organisational, and socio-cultural challenges related to computer-assisted learning. The majority of English language instructors in Pakistan do not have the financial means to purchase their own laptops (Aziz, Hassan & Dzakiria, 2018). They also do not have enough money or time to invest in obtaining training on their own. Because they do not have their own computers to practice on at home, male and female instructors experience obstacles and concerns while utilising CALI during teaching. Female instructors confront an issue of distance from their homes to computer learning

institutions since training institutes are not close to their homes, making it difficult for them to travel thereafter teaching hours. They also discovered time management issues, as practically all-female instructors had to work while still managing their homes.

Unlike male teachers, they have little spare time to master computer skills outside of the classroom. So, they want to use computer technology, but they have many obstacles to overcome in order to reap the benefits of this technology. Hassan and Sajjid (2013) look into the problems and roadblocks to using modern technology such as computers in the teaching of English in Pakistan's upper secondary institutions. Financial, technological, and institutional issues were discovered. Teachers are fatigued after teaching hours; thus, the time aspect is also crucial. CALL facilities are restricted at most universities. As a result, instructors are powerless when it comes to receiving the most up-to-date information regarding their classes.

However, due to the COVID-19 epidemic, physical classes were transformed into hybrid classes, in which those teachers who are familiar with the internet and how to use it in the classroom found it easy to teach students using technology. Senior teachers, on the other hand, found it difficult to use technology and began taking trainings and receiving assistance from their faculty members and friends in using CALL in their classrooms. CALL can make classroom processes and activities more straightforward, more enjoyable and less hectic and most imported. It can make students highly motivated to participate in classroom processes, and in this way, they can learn to use the English language more effectively and practically. Therefore, it is essential to make CALL an integrated part of large ESL classrooms as our education system is in dire need of it.

5.3 Challenges Act as Hindrances in the Path of Implementing CALL in The Large Class

This research study has investigated the attitudes of the ESL teachers of Jamshoro towards the implementation of Computer Assisted Language Learning (CALL) in large ESL classrooms. Their actual practice and usage of CALL applications for classroom processes and the factors or challenges that act as hindrances in the path of making CALL a critical part of large classes, and finally suggesting some possible solutions that can help in coping up with the challenges that teachers and students face if they try to implement CALL in large classes. This study illuminates favourable views about CALL-based instructions, while (Yasmeen, 2018) investigated the difficulties faced by university students in learning English via CALL in a lingua franca setting. This study's presentation skills are highly significant since they make teaching easier,

and Rachid et al. (2018) investigate undergraduates' digital practices to increase students' commitment to learning. As stated in the study, CALL provides favourable settings for improved teaching, but (Rashid, 2017) investigates the role of instructors and their relationships in the usage of CALL in high school teaching. The current study shows that CALL can help people increase their concrete vocabulary by providing linguistic support. ESL students are influenced by socio-cultural aspects as well as the instructional benefits of CALL (Irshad & Ghani, 2015). The issue of comfortable teaching sentiments is examined in this study, and (Rashid, 2017) assesses English instructors' attitudes and perspectives on CALL.

Findings revealed that English teachers of both of the universities held positive and motivating attitudes and beliefs about the usage and effectiveness of CALL for classroom processes, and there was no such difference in the opinion and usage of CALL in male and female ESL teachers. Similarly, no significant difference of opinion and usage of CALL applications existed among participants because of their level of education. Instead of focusing on these issues, teachers were focusing their efforts on implementing CALL in large classes, although it poses numerous challenges for teachers, students, and administration because students at these universities come from faraway places where there was no electricity, no internet, and no mobile phone service, so teachers began recording those students. The pandemic situation continued, but owing to the COVID-19 vaccine, universities and educational institutions began to open and provide physical education classes with a complete complement of SOPS. However, due to a shortage of equipment, teachers were unable to use CALL in the classroom. They aim to use multimedia and other forms of technology to offer lectures. Moreover, ESL teachers of concerned universities also find a variety of challenges, and according to the participants, the major factors behind these challenges are lack of knowledge of CALL applications, lack of training available for ESL teachers in the country, difficulty in managing computers and internet in large classrooms due to lack of resources, lack of funds available to integrate CALL as a part of large ESL classes, and less willingness on students' part.

6. Conclusion

Considering that research on teachers' attitudes and challenges is still in its early stages, the findings of the studies discussed in this paper are encouraging. They show that most instructors believe CALL is beneficial and that some teachers are using it in their language courses despite certain obstacles and restrictions. However, adopting technology in language classes is a difficult undertaking in practice; it is not only about implementing technology. Teachers must be taught how to properly use technology using a learner-

centred approach rather than a teacher-centred approach. The lack of multimedia technology in classrooms, teachers' training, teachers' hectic schedules, course content based on written communication, students' promotion criteria based on written communication, exam-oriented classroom practices, and neglect of oral communication in theory and practice are all identified as challenges to Computer Assisted Language Teaching in Pakistan.

Nevertheless, due to COVID-19 situation, teachers and administration are working together, and they implement CALL inside the classroom. They change the method of examination and take oral communication exams from students to check their level of understanding in the form of presentation, viva voce etc. To increase university students' communicative ability, it is clear that teaching English as a communicative language requires the use of technology. To summarise the responses, it can be concluded that professors are enthusiastic about the use of CALL at Pakistani institutions and find the concept appealing. The majority of instructors feel that computers and the internet may be valuable resources for teaching English.

References

- AbuSeileek, A. F. (2011). Hypermedia annotation presentation: The effect of location and type on the EFL learners' achievement in reading comprehension and vocabulary acquisition. *Computers & Education*, 57(1), 1281-1291.
- AbuSeileek, A. F. (2012). The effect of computer-assisted cooperative learning methods and group size on the EFL learners' achievement in communication skills. *Computers & Education*, 58(1), 231-239.
- Ahmadishokouh, A. A., & Samadi, F. (2021). The Differences between English and Russian Language Teachers' Attitudes towards CALL. *International Journal of Multicultural and Multireligious Understanding*, 8(10), 147-155.
- Ahmed, S. T. S., Qasem, B. T., & Pawar, S. V. (2020). Computer-Assisted Language Instruction in South Yemeni Context: A Study of Teachers' Attitudes, ICT Uses and Challenges. *International Journal of Language Education*, 4(1), 59-73.
- Al-Asmari, A. M., & Khan, M. S. R. (2014). E-learning in Saudi Arabia: Past, present and future. *Near and Middle Eastern Journal of Research in Education*, 2014(1), 2.
- Albirini, A. (2006). Teachers' attitudes toward information and communication technologies: The case of Syrian EFL teachers. *Computers & Education*, 47(4), 373-398.

- Ali, M., & Yacob, N. (2010, May). Computer vocabulary look-up behaviour of three adult university students with different English language abilities. In *Global Learn* (pp. 3355-3364). Association for the Advancement of Computing in Education (AACE).
- Alkahtani, S. A. (2011). EFL female faculty members' beliefs about CALL use and integration in EFL instruction: The case of Saudi higher education. *Journal of King Saud University-Languages and Translation*, 23(2), 87-98.
- Al-Mansour, N. S. (2012). The effect of computer-assisted instruction on Saudi University students' learning of English. *Journal of King Saud University-Languages and Translation*, 24(1), 51-56.
- Alsied, S. M., & Pathan, M. M. (2013). The use of computer technology in EFL classroom: Advantages and implications. *International Journal of English Language & Translation Studies (IJ-ELTS)*, 1(1), 61-71.
- Aziz, A.A., Hassan, M.U., and Dzakiria, H. (2018). Growing Trends of Using Mobile in English Language Learning. *Mediterranean Journal of Social Sciences*, 9(4), 235-239
- Beatty, K. (2013). *Teaching & researching: Computer-assisted language learning*. Routledge.
- CakirCakir, I. (2006). The use of video as an audiovisual material in foreign language teaching classroom. *Turkish Online Journal of Educational Technology-TOJET*, 5(4), 67-72.
- Chow, P., & Ge, V. (2011). *Multimedia English classroom*. Puli, Taiwan: National Chi Nan University Publications
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49(1), 5-22.
- Djamarah, S.B. (2011). *Psikologi Belajar*. Jakarta: Rineka Cipta.
- Edwards-Groves, C. (2012). Interactive creative technologies: Changing learning practices and pedagogies in the writing classroom. *Australian Journal of Language and Literacy*, Vol. 35(1), 99-113.
- Ercetin, G. (2010). *Effects of topic interest and prior knowledge on text recall and annotation use in reading a hypermedia text in the L2.ReCALL*, 22, pp 228-246.
- Farooq, M.U. & Soomro, A.F. (2018). Teachers and Computer technology: Trends in English Language Teaching in Saudi Arabia. *International Journal of English Linguistics*, Vol. 8(5), 10-19.
- Gilakjani, A. P., & Leong, L. M. (2012). EFL Teachers' Attitudes toward Using Computer Technology in English Language Teaching. *Theory & Practice in Language Studies*, 2(3), 360-365
- Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer assisted language learning*, 27(1), 70-105.
- Guan, N., Song, J., & Li, D. (2018). On the advantages of computer multimedia-aided English teaching. *Procedia computer science*, Vol.131, 727-732. <https://doi.org/10.1016/j.procs.2018.04.317>
- Haider, A. G. (2013). Perceptions of ESL Teachers towards Use of Computer-Assisted Language Instruction Technique Implications for ELT (English Language Teaching) at the Intermediate Level-A Case Study. *Researchgate. net Publication*, 13 (8), 204-237.
- Hassan, M.U. and Dzakiria, H. (2019). The University Students' Beliefs towards Corrective Feedback in Learning English as Foreign Language in Pakistan. *International Journal of Recent Technology and Engineering*, 8 (3), 4094-4100.
- Hassan, M.U. and Dzakiria, H. (2020). Students' beliefs towards written CF and their impact on writing accuracy in EFL class: A Pakistani EFL context. *International Journal of Advanced Science and Technology*, 29 (6-S), 648-658
- Hassan, T.U. & Sajid, A.R. (2013). Computer-Assisted Language Instructions in learning: problems faced by Pakistan. *Journal of Research and Reflections in Education*, 7 (1), 52-64.
- Hu, Z., & McGrath, I. (2011). Innovation in higher education in China: Are teachers ready to integrate ICT in English language teaching?. *Technology, pedagogy and education*, 20(1), 41-59.
- Irshad, S., & Ghani, M. (2015). Benefits of CALL in ESL pedagogy in Pakistan: A case study. *ELF Annual Research Journal*, 17, 01-22.
- Jamal, U. U. Jamal, (2020) What does the rise of online learning during COVID-19 mean for Southeast Asia? <https://www.aseantoday.com/2020/08/what-does-the-rise-of-online-learning-during-covid-19-mean-for-southeast-asia/>.
- Kaid Mohammed Ali, J., & Rashad Ali Bin-Hady, W. (2019). A study of EFL students' attitudes, motivation and anxiety towards WhatsApp as a language learning tool. *Arab World English*

- Journal (AWEJ) Special Issue on CALL*, 5, 289-298, <https://dx.doi.org/10.2139/ssrn.3431782>
- Khawaji, S. A. N. (2016). English Teacher's Perception and Practices towards Technology Implementation. *International Journal*, 4(2), 123-133. <https://web.archive.org/web/20180721142853id/http://ijll>
- Kilickaya, F., & Krajka, J. (2010). Comparative usefulness of online and traditional vocabulary learning. *Turkish Online Journal of Educational Technology-TOJET*, 9(2), 55-6
- Kuru Gönen, S. İ. (2019). A qualitative study on a situated experience of technology integration: Reflections from pre-service teachers and students. *Computer Assisted Language Learning*, 32(3), 163-189.
- Lai, C., Yeung, Y., & Hu, J. (2016). University student and teacher perceptions of teacher roles in promoting autonomous language learning with technology outside the classroom. *Computer Assisted Language Learning*, 29(4), 703-723.
- Lodhi, M.A, Fatima, A., Ismail, F., Amin, N., Khalid, F., & Siddiq, A (2019). Attitude of Male and Female Students Towards Computer Assisted Language Learning at Intermediate Level. *English Language Teaching*, 12 (3),108-118. <https://eric.ed.gov/?id=EJ1205628>
- Machnaik, J. (2012). *Investigating the effect(s) of computer technology integration on teaching practices that may lead to the development of a community of learners* [Electronic version]. Saskatoon, SK, Canada: University of Saskatchewan. <http://www.usask.ca/education/coursework/802papers/machnaik>.
- Mahdi, H. S. (2013). Issues of computer-assisted learning Normalisation in EFL Contexts. *International Journal of Linguistics*, 5 (1), 191-203
- Naeini, J., & Duvall, E. (2012). Dynamic assessment and the impact on English language learners' reading comprehension performance. *Language Testing in Asia*, 2(2), 1-20.
- Nami, F., Marandi, S. S., & Sotoudehnama, E. (2016). CALL teacher professional growth through lesson study practice: an investigation into EFL teachers' perceptions. *Computer Assisted Language Learning*, 29(4), 658-682. <https://doi.org/10.1080/09588221.2015.1016439>
- Pham, H. H., & Ho, T. T. H. (2020). Toward a 'new normal with e-learning in Vietnamese higher education during the post COVID-19 pandemic. *Higher Education Research & Development*, 39(7), 1327-1331.
- Pham, V. P. H., & Vo, N. D. T. (2021, March). CALL in Asia during Covid-19 and Models of E-learning. In *Proceedings of the 17th International Conference of the Asia Association of Computer-Assisted Language Learning (AsiaCALL 2021)* (Vol. 533, pp. 1-10).
- Hayashi, R., Garcia, M., & Maddawin, A. (2020). *Online Learning in Sri Lanka's Higher Education Institutions during the COVID-19 Pandemic*. Asian Development Bank.
- Rachid, S., Cunningham, U., Watson, K., & Howard, J. (2018). Revisiting the digital divide (s): Technology-enhanced English language practices at a university in Pakistan. UC Research Repository <https://ir.canterbury.ac.nz/handle/10092/16079>
- Rahman, D. "A reckoning for online learning in times of crisis," *The Star*. <https://www.thestar.com.my/opinion/columnists/whats-your-status/2020/03/24/a-reckoning-for-online-learning-in-times-of-crisis>
- Rashid, S. (2017). Computer Assisted Language Learning in Pakistan: Teachers' Perspectives. *Journal of Asia TEFL*, 14(4), 802-808
- Saglam, A. L. G., & Sert, S. (2012). Perceptions of in-service teachers regarding technology integrated English language teaching. *Turkish Online Journal of Qualitative Inquiry*, 3(3), 1-14.
- Singh K, Srivastav S, Bhardwaj A, Dixit A, Misra S.(2020). Medical Education During the COVID-19 Pandemic: A Single Institution Experience. *Indian Pediatrics*.Vol. 57(7): 678–679.
- Tai, Y. (2012). Contextualizing a MALL: Practice design and evaluation. *Journal of Educational Technology & Society*, 15(2), 220-230.
- Yarrow, N. (2020). COVID-19 in East Asia: How the region's higher education systems are addressing the crisis to adapt to the future. *World Bank Blogs*. <https://blogs.worldbank.org/education/covid-19-east-asiahow-regions-higher-education-systems-are-addressing-crisis-adapt>.
- Davies, M. G., & Taronna, A. (Eds.). (2012). *New trends in early foreign language learning: The age factor, CLIL and languages in contact. Bridging research and good practices*. Cambridge Scholars Publishing.
- Tafazoli, D., & Golshan, N. (2014). Review of computer-assisted language learning: History,

- merits & barriers. *International Journal of Language and Linguistics*, 2(5-1), 32-38.
- Levy, M. (1997). *Computer-assisted language learning: Context and conceptualization*. Oxford University Press.
- Bulut, A. (2010). English teacher's barriers to the use of CALL in university EFL classes. Cukurova University.
http://www.geocities.com/musician_a_b/Important_files/project_2.htm
- Pennington, G. (1994). Developing learning agents, in P. Nightingale and M. O'Neil (eds) *Achieving Quality Learning in Higher Education*. London: Kogan Page.
- Yasmin, F., & Islam, M. (2018). Academic roles of English language teachers: A study of the perceptions of Pakistani teachers and students. *Journal of Foreign Languages*, 6(1), 13-24.
- Gilakjani, A. P., & Leong, L. M. (2012). EFL Teachers' Attitudes toward Using Computer Technology in English Language Teaching. *Theory & Practice in Language Studies*, 2(3), 630-636
- Kim, Y-M. 2002. 'Collective neurosis of English fever.' *Education Review*, 9, 56-64
- Qasem, A. A. A., & Viswanathappa, G. (2016). Blended learning approach to develop the teachers' TPACK. *Contemporary Educational Technology*, 7(3), 264-276.
- Gill, R. (2011). *Theory and practice of leadership*. Sage.
- Ali, M. M. & Gulzar M. A. (2016). Call Integration: Difficulties and Barriers Faced by ELT Teachers. *Sci.Int.(Lahore)*,28(5),483-490,
- Charmonman, S., & Mongkhonvanit, P. (2014). Information technology preparation to enter ASEAN community. *International Journal of the Computer, the Internet and Management*, 22(2), 1-6.
- Yasmin F. (2018) Challenges to Computer Assisted Language Teaching at University Level. *International Journal of Language and Literature*. 6(2), 86-93
- Bhatti, R., Ahmad, M. N., & Khan, S. A. (2014). Trends towards internet usage among college teachers of Lodhran District, South Punjab, Pakistan. *University of Nebraska – Lincoln. Library Philosophy and Practice*. 1090.
<https://core.ac.uk/download/pdf/33135181.pdf>
- Abdollahpour, Z., & Maleki, N. A. (2012). Second language vocabulary acquisition in CALL and MALL environments and their effect on L2 vocabulary retention: A comparative study. *Australian Journal of Basic and Applied Sciences*, 6(9), 109-118.