CALL FOR TEACHING GRAMMAR: A COMPARISON OF WBI AND TRADITIONAL METHOD

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ABSTRACT

The advent of computer in general and internet in particular has opened new avenues for learning language. Computer Assisted Language Learning (CALL) is considered highly effective for language learning as technology creates a student centered environment, increases learner autonomy, and results in higher learning outcomes. This study investigated if CALL using Web Based Instruction (WBI) as a tool is more beneficial than the traditional method for teaching English grammar to undergraduate students in Pakistan. An experimental design was followed to compare the effect of technology based and traditional method of teaching and a focus group interview was conducted to obtain the participants' views about CALL. MANCOVA test was applied for the analysis of the pretest and posttest scores. Results showed that the experimental group performed significantly better than the control group. Additionally, the students exhibited a positive attitude towards technology based teaching. Based on these findings, integration of computers is recommended in English language teaching for improved learning.

KEYWORDS

Computer Assisted Language Learning (CALL), Web Based Instruction (WBI), English language teaching, Grammar

INTRODUCTION

Computers have impregnated all fields of human discipline. Professionals in all walks of life have long been accustomed to the prodigious benefits that it offers. Attributed to their effectiveness, computers are now widely accepted as a powerful tool and are used in all branches of education including language learning. Computer Assisted Language Learning (CALL) is the use of computer for language learning and teaching to help learners to improve and practice their language skills (Beatty 2010 as cited in Alhujaylan, 2019). It is considered a breakthrough in the realm of language teaching (Eslit, 2017). CALL draws on many fields such as Artificial Intelligence (AI),

educational psychology, computational linguistics, human-computer interaction and language learning (Ellis, 2004). CALL has evolved through the two phases of behaviourist and communicative CALL and is currently in the third phase of integrated CALL. During the earlier phases, the use of computer changed from tutor to tool. The users were provided with drill based grammar teaching as a tutor and developing programmes such as word processor as a tool. The third and current phase, the integrated CALL based on multimedia and internet, emerged in the 1990s and gave rise to Web Based Instruction (WBI) where World Wide Web (WWW) is used as a tool. WBI is defined as the "application of a repertoire of cognitively oriented instructional strategies implemented within a constructivist and collaborative learning environment, utilizing the attributes and resources of the World Wide Web" (Relan and Gilani,1997, p.28). Using internet is an effective way of teaching as it makes use of sound, graphics and videos which give teachers an opportunity to make learning more interesting for students (Tafazoli & Gulshan, 2014).

WBI has been endorsed for second and foreign language learning by the researchers (Al-Jarf, 2005, 2013; Al Naba'h, 2012; Mudawe & Mudawe, 2016; Rahnavard & Heidar, 2017; Shadiev & Yang, 2020) for greatly enhancing the quality of learning and teaching, resulting in the most successful second language pedagogies. Second language acquisition, despite being an extremely complex process, has long been a common activity (Doughty & Long, 2003). The transfer between complex linguistic structures of the mother language (L1) to second language (L2) is a daunting task. According to linguists, to know a language and to be able to use it means knowing its grammatical patterns and their appropriate usage (Debata, 2013). Therefore, it is indispensable for the learners of a second language to learn its grammar.

English, taught and spoken as a second language in many countries, enjoys a very high status in Pakistan. It is a class marker and provides its users with better prospects of prestigious jobs (Rahman, 2005). English is taught as a compulsory subject at all levels of education; however, students do not become proficient in it despite studying it throughout their academic lives. They lack knowledge of the rules of English grammar even after being taught for twelve to fourteen years (Ahmed et al., 2011). This shortcoming inculcates insecurity in the students (Haider & Fang, 2019), particularly at tertiary level where it hinders their academic performance as most of the teaching is done in English at that level and in their professional lives with little chances of success for attaining respectable jobs. Researchers (Shafaei, 2012; Rashid, 2017) hold the traditional teaching methods which are teacher centered and where students are passive recipients of information, responsible for this discrepancy. This situation strongly suggests the need to change the currently implemented teaching methods and a shift to more contemporary and effective methods.

CALL has gained considerable attention from all different entities of language learning including the four language skills (reading, writing, listening, speaking), grammar, vocabulary, material development and many others going on to instigate researchers and teachers to explore the field further. Many studies (Almekhlafi, 2006; Ertmer, Ottenbreit-Leftwich & York, 2006; Zou, 2008; Teo, 2011) worldwide have been conducted to investigate the effect of CALL on learning languages. Research results mostly demonstrate a positive effect of CALL on students' learning and developing their language competency.

CALL does not have a discrete theory of its own. Most of the research and development in this area is based on external theories (Levy & Stockwell, 2006). This however, is not considered a drawback for the field because to educationists, the prime concern lies with theories of Second Language Acquisition (SLA). Hubbard (2009) in his analysis of 500 articles published in CALICO journal from 1983 to 2007 identifies that most of the articles that talk about theories have based their work on education, learning and pedagogical theories. Nevertheless, the role of CALL theories cannot be completely ignored. Introduced by Hutchins (1995), the theory of Distributed Cognition forms the basis of human-computer interaction. It seeks the organization of cognitive system and implies that among the activities that take place in our routine, a large portion is a combination of processes between humans and their tools. Hutchins (2000) calls these tools cognitive artifacts as they amplify the user's cognition such as a calculator amplifies the user's ability to calculate. He treats memory as a distributed cognitive function and explains that several memory functions are external to people such as writing down things that one needs to remember. This may not amplify memory but will "…organize functional skills to cognitive functional system" (p. 8). Stockwell (2012) gave the example of learning vocabulary through technology and said that instead of memorizing, the words may be accessed through software or online dictionaries, thereby relating this theory to CALL. The second theory of Situated Action builds on the idea that peoples' behavior will change according to the changing situation provided to them based on the real and perceived outcome. For example if the users are not aware of the usage of certain software, they may be hesitant to use it and may not benefit from it the way it is designed to aid them. Therefore, for the users to make informed decisions, they need to be aware of the outcome of the technology that they intend to use (Stockwell, 2012).

Incorporation of CALL using Web based instruction has been appreciated by many researchers for improved learning. The students in most of the studies were found to exhibit a positive attitude towards CALL (WBI) for a variety of reasons. One of the reasons is their heightened interest in learning through technology incorporation (Chen and Yang, 2014). Rezvani and Ketabi (2011) compared the effectiveness of web based material with print based materials for teaching grammar. They assert that websites

based instructions is more effective than the text books in terms of acquisition of the knowledge of the taught forms. They results show that that internet being a new medium of instruction is more interesting for the students and raises their motivation which results in improved performance. They suggest that teachers should frequently utilize websites in classrooms for increased learning. Thamrin, Suriaman & Maghfirah (2019) studied the perception of the students on the use of MOODLE (Modular Object-Oriented Dynamic Learning Environment) web-based for grammar and found that grammar, generally found boring by the students, was made interesting by the use of internet in the classroom as it is perceived by the students to create a delightful atmosphere and keeps them attentive throughout the class-time.

WBI provides learner autonomy and allows the students to take control of their own learning. The material is more interesting to the learners and is available at all times allowing them to study at their own convenience. Alhujaylan (2019) studied the effectiveness of CALL for teaching writing skills to students in Saudi Arabia and found that CALL provides the learners with the opportunity to go beyond the limits of the syllabus. They are not bound to the syllabus and have the provision of exploring a lot more than what is provided to them in limited time through the text book. The researcher recommends using CALL in the classroom and suggests that the classrooms should be provided with the best technological facilities to enhance learning.

A variety of online software has been studied to explore the effectiveness of WBI. Al-Jarf (2013) used online synchronous practice using Elluminate Live (web conferencing software) in her experimental study and found significant difference between the two groups in grammar mastery. Participants of the experimental group also exhibited positive attitude towards web conferencing. Baturay, Daloglu &Yildrim (2013) used WEBGRAM (a system that provides web based revision material) for grammar teaching, designed to provide learners with support and revision material outside the class, thereby giving them more time for communication during the class hours and helping them manage their own learning and time effectively. They also identified that using web based grammar revision material as supplementary aid strongly contributes to language learning. Similar findings are reported by Ali (2018) who used "Hot Potatoes" to compare the effectiveness of teacher driven instruction and Web based instruction for teaching modal verbs to EFL undergraduate learners. He asserts that the use of this software allows the learner to work on the content of their choice, according to their abilities and helps them work at their own speed, thereby catering to their individual needs.

Despite most of the research supporting CALL (WBI) for improved learning, there have been findings showing otherwise as well. While the participants show positive attitude, there may be no difference in learning with or without technology. Kayaoglu,

Akbaş and Erbay (2015) dealt in web-based grammar for the learners of English as a Second Language (ESL) at tertiary level in Turkey and provided the participants with an amalgamation of coursework, online and mobile sources. Results showed that the overall academic success was not significantly affected. The students identified problems related to accessing the system and the high cost of the original software; nonetheless, the participants gave a positive response towards web-based grammar instruction for being attractive in terms of appearance and found it helpful for learning as it provided them with immediate feedback.

While some of the researchers conclude that there are no significant differences in web- based and traditional instruction, most of the research supports the use of technology and acknowledges its benefits in terms of improved learning and motivating students to learn. Results such as improved performance in certain areas and no difference in others also show that WBI may be more than or just as beneficial as traditional methods. Researchers (Al-Jarf, 2005; Son, 2008) also suggest integration of WBI with traditional methods. Qureshi et al. (2012) believe that using technology may not yield the desired result until the purpose it is used for and the type of technology is taken into account.

Pakistan still faces dearth of research in the use of technology for teaching grammar. Among the limited work done here in CALL is the study by Hussain, Iqbal and Akhtar (2010) regarding the impact of technology based environment on the achievement of EFL students. T.M. Bhatti (2013) explored the effectiveness of teaching reading through CALL. Rashid (2017) studied teachers' perspective of CALL and found that the teachers have the basic know-how and are willing to incorporate technology in their classrooms. Bashir and Anjum (2019) studied the impact of using indigenous CALL material on ELT in classroom and found that while the students were interested in learning through technology using indigenous material, the teachers were hesitant towards developing the material and teaching through it. The findings of these studies suggest that CALL provides an environment that is more conducive to learning than the traditional method. The limited research conducted in CALL does not cater to grammar teaching, and CALL with WBI as a tool for language teaching largely remains a neglected area in Pakistan.

The study compares the effectiveness of WBI and traditional method for teaching subject-verb agreement, conditionals and interrogatives identified by the researchers (Karim, Fatemah and Hakim, 2015; Nayan 2009; LaiChun 2005; Lee,2012) as weak areas in the production of language of L2 learners even after studying English for several years.

This study tends to provide the teachers and researchers with Pakistan based research

for teaching English at tertiary level. The findings may convince the traditional educationists of the tremendous benefits of CALL using WBI, thereby motivating them to apply technology for educating their students. The final beneficiaries will certainly be the students; the use of technology may help them to develop as independent learners by providing them with material and guidance outside the boundaries of the classroom. More importantly, during the prevailing Coronavirus struck situation, where teachers have to resort to the use of internet, the use of WBI may prove as an effective and more readily accepted tool for teaching and learning.

RESEARCH QUESTIONS

1. How does CALL using WBI as a tool compare with the traditional method for teaching English grammar to the students of ESL at tertiary level?
2. What is the students' perception of CALL using WBI for learning English grammar at tertiary level?

RESEARCH METHODOLOGY

The current research was designed to be a mixed method approach combining quantitative and qualitative methodologies. The quantitative approach made use of the experimental design comprising two groups of participants: control and experimental, with the experimental group experiencing the intervention. The qualitative approach involved interviewing the participants of the experimental group to obtain their views about the new teaching method that they were exposed to.

Participants

Fifty participants (n=50) were selected through simple random sampling technique from the list of enrolments in the second semester of bachelor's programme at a private university. They were divided in two groups (control and experimental) with each group comprising 25 members. All the participants were already enrolled in English language course (titled Communication Skills) at the university and were frequent users of computer and internet. A total of 8 participants were selected from the experimental group for focused group interview on the basis of their performance ranging from below average to above average in the post test.

Data Collection

The quantitative data for the current study was collected through pre-test and post-test for each grammar area separately. The teaching objectives were kept under consideration while planning both pre-test and post-test. The tests comprised variety of types of objective items including true/false, fill in the blanks and error correction in a given paragraph for assessing the participants' level of proficiency for the taught areas of grammar. The post-test for each grammar area was conducted immediately after completing the sessions planned for that area.

A semi-structured focus group interview was conducted to obtain the participants' perspective of the computer assisted language learning sessions after the last post-test was conducted.

Procedure
Both groups were taught grammar for three credit hours over a period of 2 months (1.5 hours x 2 lectures per week) which amounted up to a total of 24 hours of contact time where each grammar area was taught for eight hours. In the beginning of each lecture, the participants were given a presentation of the rules required for that concept with examples followed by a brief discussion and practice session on the usage. The practice session for the experimental group for each lecture was based on CALL using Web Based Instruction (WBI) as a learning tool that made use of several carefully selected websites. These sessions were held in the computer lab where all the students had a computer at their disposal. The same practice sessions for the control group were held using the pen and paper worksheets in the classroom. These participants were asked to completed the worksheets and share the answers with their peers and the teacher. The worksheets were discussed and the feedback was provided to them. Each lecture for both the groups ended with participants' verbal or written production of the studied grammar area.

Focus group interview
A semi-structured focus group interview was conducted to obtain the participants' perspective of CALL sessions. The interview comprised open-ended questions pertaining to the participants' opinion about the sessions and how they compared these to the traditional methods of grammar learning. Additionally, the participants were asked to identify the positive and negative aspects of the CALL sessions based on their experience. Suggestions were also sought from them to probe deep into their views.

Data Analysis
Post-test Results
In order to compare the effect of teaching grammar through CALL and traditional method, multivariate analysis of covariance (MANCOVA) test was applied on SPSS.

Interview
The interview was recorded to avoid missing out on any detail. The recorded interview was carefully transcribed producing textual data. Coding categories were identified by keeping the categories all-inclusive and mutually exclusive.

FINDINGS
Pre-test Post-test Analysis
Pretest measures, also called covariates in MANCOVA were treated as independent

variables in the current study; post-test measures were taken as dependent variables while the factor of CALL was nominal. The purpose of treating pretest measures as independent variables is to control the subject specific effect. The covariates after running the MANCOVA test for the subject-verb agreement, conditionals and interrogatives were found insignificant at $p < 0.01$ and thus step-wise dropped from the model.

Results of MANCOVA Test.
In all the three areas of grammar, there was a statistically significant difference in academic performance of the two groups based on CALL $F(1,48) = 11.422$, $p = 0.00$, Wilk's $\Lambda = 0.568$.

Subject Verb Agreement
There was a significant effect of CALL on the scores of post-test for subject verb agreement $F(1,48) = 4.06$, $p = 0.049$. Therefore the results were found significant at $p < .05$. The following figure illustrates the significant difference in the post-test result of control and experimental group.

Figure 1: *Estimated Marginal Mean of Experimental and Control Groups for Subject-Verb Agreement*
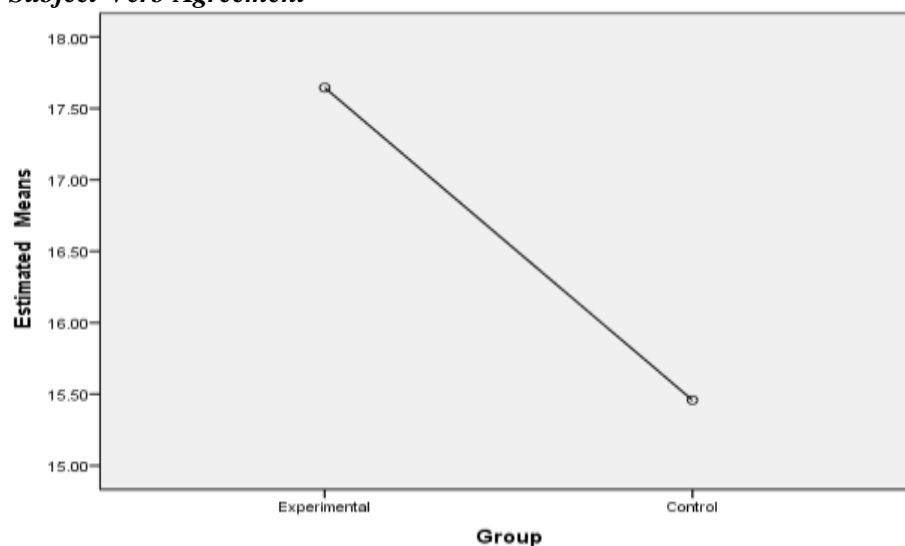
The graph shows that the mean score for the experimental group was calculated to be M = 17.63 while that for control group was M = 15.47 resulting in a difference of 2.16 in the mean scores of both the groups.

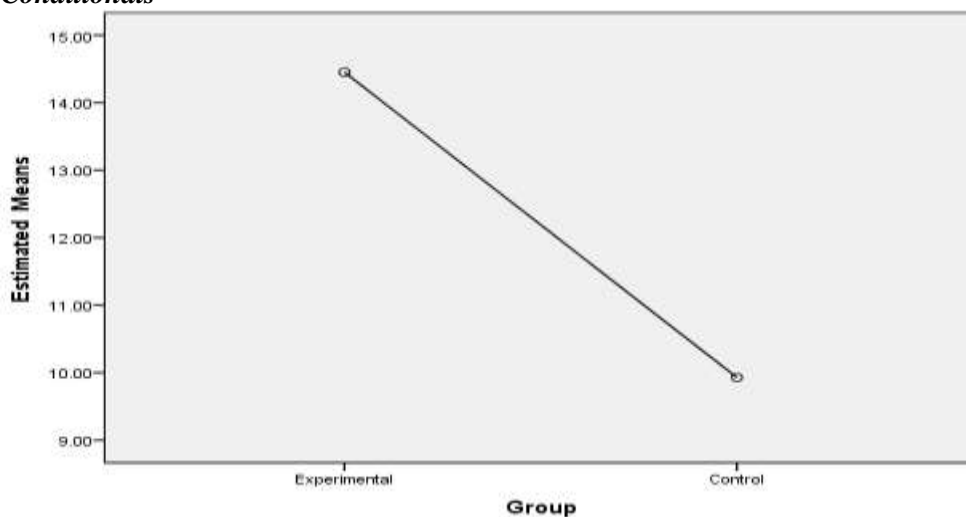**Table1:** *Item-wise Mean Scores of Control and Experimental Groups at p<0.001 for Subject-Verb Agreement*

Item Type	Experimental group	Control group	Difference in mean scores
MCQ	8.36	7.72	0.64
Identification of correct structure	3.68	3.36	0.32
Error correction	5.59	4.39	1.20

There was a significant effect of CALL on scores of post-test for subject-verb greement at p < 0.001 with the highest difference in the mean scores of error correction item.

Conditionals

Results revealed that there was a significant effect of CALL on scores of post-test for conditionals $F(1,48) = 27.818$, $p = 0.000$. Therefore the results were found significant at $p < 0.001$. The following figure illustrates the significant difference in the post-test result of control and experimental group.

Figure 2: *Estimated Marginal Mean of Experimental and Control Groups for Conditionals*

The graph shows the mean score for the experimental group M = 14.44 while that for control group M = 9.94, resulting in a difference of 4.5 in the mean scores of both the groups.

Table 2: *Item-wise Mean Scores of Experimental and Control Groups at p<0.001for Conditionals*
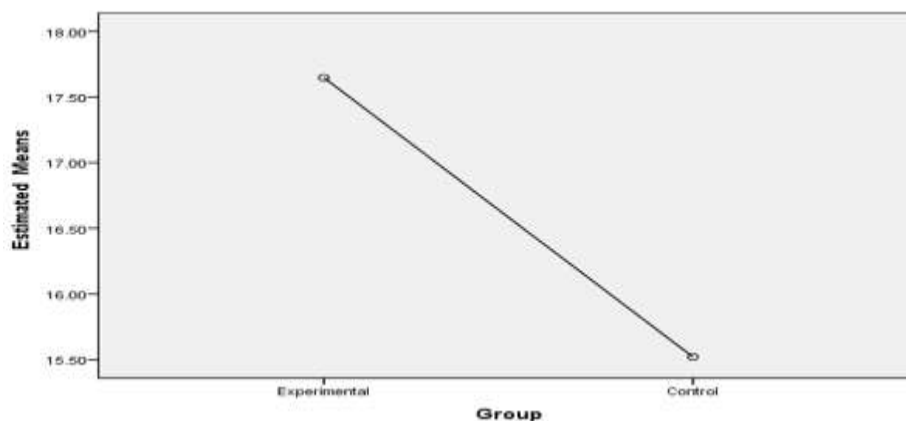
Item Type	Experimental group	Control group	Difference in mean scores
MCQ	4.2	3.64	0.56
Fill in the blanks (using correct tense)	3.62	2.96	0.66
Sentence Construction (Inverted Conditionals)	4.26	1.96	2.3
Error correction	2.36	1.38	1.98

There was a significant effect of CALL on scores of post-test for conditionals at $p < 0.001$ with the highest difference in the mean scores of the item requiring sentence construction of inverted conditionals followed by error correction item.

Interrogatives

Results showed that there was a significant effect of CALL on scores of post-test for interrogatives $F(1,48) = 13.607$, $p < 0.001$. Therefore the results were found significant at $p < 0.001$. The following figure illustrates the mean difference in the post-test result of control and experimental group.

Figure 3: *Estimated Marginal Mean of Experimental and Control Groups for Interrogatives*

The graph shows that the mean score for the experimental group was calculated to be $M = 17.64$ while that for control group was $M = 15.53$. This resulted in a difference of 2.11 between the mean scores of both the groups.

Table 3: *Item-wise Mean Scores of Control and Experimental Groups at p<0.001for interrogatives*

Item Type	Experimental group	Control group	Difference in mean scores
Word Order	13.79	12.00	1.79
Error correction	3.85	3.52	0.33

There was a significant effect of CALL on scores of post-test for interrogatives at p < 0.001 with a higher difference in mean score of the test item regarding word order.

Interview
The participants unanimously agreed that CALL sessions were beneficial. They acknowledged that their grammar had improved and that they did not make mistakes any more specially while speaking with others. One of the participants mentioned, "It has helped me in daily conversation". They identified CALL as an engaging way of learning. They were appreciative of the diverse types of exercises that provided them with a variety of activities. They found the interactive exercises to be motivating and appreciated the display of scores on their screens since the increasing scores made them feel confident. "It's a motivational thing and (gives) a sense of achievement." A participant specially praised learning through games and considered it interesting by saying, "playing games, basketball stuff, was interesting."

The participants considered working on the computer as a practical experience that helped them in learning the concepts. A participant said, "These (exercises) were much better because we did them ourselves". The participants also mentioned that CALL provided them with clear grammar rules that helped them learn the concept better. They considered teaching at school as conventional and uninteresting and said that they were not taught grammar rules explicitly.

Another positive aspect of CALL was identified as developing the students as independent learners. The participants felt that they could become independent learners as now they had become aware of the availability of English grammar guidance and information about the concepts on the internet. One of them said, "I know I can find anything anywhere on the internet". The participants identified technical issues as a negative aspect of the computer assisted sessions. They identified that the lab lacked technical facilities and sudden shutting down of the computer due to power failure was annoying for them. Misuse of the web based exercises was also perceived as a negative aspect of CALL by the participants. They disclosed that their peers could and did cheat as the online exercises had the facility of showing the answers before the students actually completed the task. A student told, "They clicked the show answers button first and saw the answers before attempting the task." They suggested that misuse should be monitored and that the students should not be allowed to edit their work by looking at the answers before they completed the exercise.

DISCUSSION

The findings of this study suggest that learning grammar through CALL using WBI as a tool is more effective than that through traditional method. The participants also perceived the use of technology positively for learning grammar. These results are similar to those conducted by Naba'h (2012) and Shafaei (2012) who taught grammar to non-native ESL students and found CALL based teaching to be more effective than traditional methods. Studies conducted by Rezvani and Ketabi (2011) and Baturay, Daloglu &Yildrim (2013) compared the usefulness of using web as a tool with traditional method of teaching English as a second language, selecting various areas of grammar, also reported similar findings. Ali (2018) dealt in web-based grammar for the ESL learners at tertiary level and the findings were similar to the current research. Alhujaylan (2019) studied teaching writing skill through CALL with grammar as one of the sub-areas and found technology to be more useful than the traditional method of teaching. The results of the current research are in contrast with those of Kayaoglu et al., (2015) where there was no significant difference observed in learning through the traditional method and CALL; however, they (Kayaoglu et al., 2015) mentioned that the participants showed a positive attitude towards CALL which is similar to the findings of the current study.

The improved learning of the experimental group can be attributed to the privileges that technology presents to the learners, one of which is the human-computer interaction. "The human-computer interaction confronts difficult challenges of supporting complex tasks." (Hollan, Hutchins & Kirsh, 2000, p. 175). Contrary to the traditional view, that looks for the cognition with-in the person, the distributive cognitive system makes use of internal and external systems, thereby increasing human cognition. The environment provided by the computers, through interactive exercises over the internet acts as a part of the whole cognitive system, playing a powerful role in enhancing cognition as an external system. An interesting finding of this study is the increased usefulness of CALL for teaching difficult concepts at several levels of cognitive skills. While studying conditionals, the structure of inverted conditionals that was a new concept for the participants in both the groups, was deemed difficult by all the participants. Results showed that among the four types of items in the conditionals post-tests, the highest difference in the mean scores of both the groups was found in inverted conditionals followed by error correction. Based on Bloom's taxonomy of cognitive skills, sentence construction deals with the skills of knowledge, understanding, and application while error correction requires both analysis and application. Similarly, the highest difference in the mean scores of both the groups for subject-verb agreement was found in the error correction item that requires higher order skills of analysis and application. These results indicate that CALL plays a significant role in enhancing cognition.

Krashen (1981), in his theory of SLA gives the affective filter hypothesis where he includes motivation, confidence and anxiety as variables of affect. When the affective filter blocks input, learning does not take place. Skinner (1953) considers motivation a product of environmental conditioning, Gagné (1985) includes both internal and external conditions required for augmented motivation level. The environment being joyful due to its interactive nature and colourful interface intrinsically motivates the learner to learn. The variety of material and the interactive approaches tend to have an increasingly positive effect on the student. The web-based material provides new approaches to conducting classes and facilitates teaching and learning (Ngai et al., 2007 as cited in Rezvani & Ketabi, 2011). The print material may provide limited types of games to the learner while a large variety of colourful and interactive games are easily available in web-based material that can trigger interest and better enhance learning. Games keep the learner interested in their work (Tuan & Doan, 2010). The shift from text book and teacher to a more varied source of information enables the learner to use highly developed metacognitive skills (Relan & Gillani, 1997). Rezvani and Ketabi (2011) agree that educational websites help in enhancing the learning of a second language. Additionally, the display of scores, as the learners complete a worksheet on the screen, also helps in motivating them. With the exception of a few, most of the web-based exercises provided them with ongoing feedback for each sentence. SLA theories suggest that it is important that the feedback be provided to the student immediately to be effective (Polio, 2012). "Students find out immediately how their work compares to a standard and what they should do to improve it" (Lavolette, Polio & Kahng, 2015, p.52). The ongoing feedback helped the students to identify the mistake and understand the right answer thereby improving their performance which resulted in achieving better grades. A high grade is a sign of success and the students strive to feel successful (Cambria & Guthrie, 2010) and are motivated to work even harder.

CALL provides the participants with independent learning and allows them to work by themselves. The participants in the interview called it a "practical experience". Nabah's (2012) also explains that when the students use the keyboard and mouse themselves they have the feeling of practically being involved in the learning process; they feel in control of their learning which boosts their confidence level. The control is revoked from the teacher and handed over to the students. This results in student centeredness and they tend to become independent learners. In a student centered classroom, the pupils do not depend on their teacher all the time, the teacher is a facilitator and learners learn at their own pace (Jones, 2007). Independent learning has been found to result in improved academic performance (Meyer et al., 2008). The learners work independently and can attempt the same exercise as many times as they want to or move on to the next one, as and when they please. Mohamad (2009) also endorses student centeredness as a feature of CALL and explains that the participants

can practice as many times as they want to while working independently at their own pace. She believes that these self-directed tasks aid the learners for exploring, discovering and making their own choices regarding their learning processes.

While CALL helps in motivating the students and increasing their confidence, it keeps the anxiety level low as well. In a traditional classroom, students may experience anxiety while interacting with the instructor due to the fear of being judged by the instructor, or when they see their classmates performing better than them, they undergo a comparison among themselves and their peers. These situations may cause them to suffer from inferiority complex and hamper their learning. The human-computer interaction saves them from such circumstances keeping their anxiety level low resulting in enhanced learning.

CALL using WBI proved to be significantly beneficial than the traditional method; however, the absence of proper equipment and uninterrupted supply of both internet and electricity can hamper the flow of learning and plummet the level of interest and motivation in a learner. Additionally, many websites provide the students with show-answer button which reveals all the correct answers even if the exercise is not completed or even started. Although knowing what to do and how to do it adds to the student's knowledge and confidence, such options tempt the students to see the answers first and they begin to depend on their memory instead of applying their skills. This may impact their learning negatively. Nevertheless, if these minor issues are taken care of, the use of technology can greatly enhance the learning and interest of the English language learner.

It is high time that our students be provided with the latest and the best opportunities for learning through technology based teaching. Technology that has long been embraced by the developed countries is still a new concept in Pakistan. Therefore, our students need to be exposed to the latest and most effective ways of teaching to enhance their learning and enable them to compete with their counterparts all over the world.

Switching to technology for learning may be a daunting task for a country like Pakistan. Qureshi et al. (2012) identify infrastructure of technology and teachers' motivation as major hindrances in embracing technology for the purpose of teaching. They have an attitude that depicts resistance to change (Qureshi et al., 2012) and their behavior towards technology is cynical and resistant (Peachey, 2015). They go as far as considering technology integration a threat to their jobs (Memon and Memon, 2016 as cited in Bashir and Anjum, 2019) "With ESL teachers struggling to find use of the technology they already have, it is unrealistic to expect them to quickly accept another use of modern technology: CALL" (Irshad & Ghani, 2015, p. 4). Teachers need

training of using technology, acquainting them with the software or websites that may be useful according to the objectives of their lessons. Using technology for the sake of using it may not yield the desired outcome. No matter how beneficial the technology, it may not serve the purpose if it is not implemented properly (Qureshi et. al, 2012). If the lecture is not well planned and technology is not carefully integrated in it, the desired outcome may not be obtained. If the use of technology is not relevant, it may hamper learning, instead of enhancing it. Therefore the syllabus as well as the lectures needs to be well-designed to meet the purpose successfully. For this, not only the syllabus developers, but the teachers also need to be proficient in identifying and using technology according to the requirement.

Further research needs to be held in identifying factors that prevent teachers from using technology. The identification and development of the technological needs of both the teachers and students need to be explored for employing relevant technology effectively. Additionally, research exploring the issues faced by the institutes in incorporating CALL and overcoming the identified problems is extremely necessary. With continued research and effort, technology will be effectively integrated at all levels of education to develop our students as confident users of English language. This will not only boost their morale but will help them excel in all walks of life around the globe.

RECOMMENDATIONS
1. The syllabus needs to be upgraded by integrating technology in it. New syllabus needs to be designed or the currently implemented one needs to be updated with technology integration in it. This will provide student centeredness in the classroom and independent learning to the students
2. Teachers will need to be trained in two ways: firstly how to delegate the responsibility of learning to the student i.e.; to embrace the role of a guide or a facilitator and secondly about using technology effectively in the classroom by integrating it in the lesson.
3. Most importantly, technology needs to be used thoughtfully. Using technology for the sake of using it may not yield the desired outcome.

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