CALL: A RESOURCE IN IMPROVING PRONUNCIATION OF THE SECONDARY SCHOOL STUDENTS IN KOT ADDU-PAKISTAN.

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ABSTRACT-English is the most widely spoken language in the world. That is why it is given more importance not only in the whole world but also in Pakistan. Due to this importance, it is included as a compulsory subject from grade 1 to graduation level. But the dilemma is that even it is compulsory subject, our students are not been able to use this language in their daily routine life. Their spoken skill is poor and they can't speak like the native speakers. Their pronunciation is not up to the mark. Therefore, the aim of this experimental study is to improve the pronunciation of the secondary school students, so that they feel confident and they will be able to use this language in their daily routine life and pronounce it correctly. For this purpose, 10 students of the secondary level were chosen from one of the prominent schools of Tehsil Kot Addu. For selection of these students, a pre-test was conducted. The objective of this test was to judge whether the students were able to pronounce the words correctly. It was found during the test that the selected students could not pronounce words correctly. So some CALL (computer Assisted Language Learning soft- wares were applied to improve their speaking skill. These included MyET, Dramatized videos of the lesson and Encarta Word Dictionary. These techniques increase the interest of students in the study. They felt motivated. After teaching with these soft wares, another post-test was conducted and it was found that now students were able to pronounce words easily and correctly. Their pronunciation was improved significantly. The results suggest that CALL methods should be used for teaching pronunciation at secondary school level to improve the pronunciation power of the students. The policy implication of this study is that CALL methods may be introduced all secondary school levels so that the students can utter English words or sentence in a correct way and face no problem in their practical life particularly when they go abroad for higher studies.

Key Words: Computer Assisted Language Learning, My English Tutor, Computer Assisted Instruction.

1. INTRODUCTION

Due to the increasing use of technologies, the world is also changing day-by-day. Human beings are using technologies in every field of the life. Not only in other fields but in the field of education technology is also being used. Due to this change now the system of education is completely changed. Now world is trying to get rid of all the traditional ways of teaching. Now they have changed the old method of teaching in which teacher used blackboard and chalk for educating the child. Now they use computers in the teaching, that they make the field of education very interesting and child feels confident and got motivated. The situation in Pakistan is very different. In a situation when the whole world is thinking to shift to another planet, when they are trying to find out some other ways to move forward we are still using the same old method of teaching. We are still using the old method of chalk and blackboard. We are not thinking to move forward. Different technologies are used to teach the students. We are still clinged to the same rigid method. The situation is very critical. In todays' world, different languages like English, French, Japanese, etc, are gaining popularity. Experts use computer software to teach the language. Learning a language with the help of computer software is not less than a miracle. Internet helps the people to link, communicate and interact with each other. Thus, we can say that it plays a key role in learning language.

English language is the main language that is gaining popularity. Students of the different languages tried to learn it. Here the main thing is that they learn the English in written form also. The point is that written and spoken are two different things. Written language is the language that we do

on the paper, which can make no noise but spoken is the language that consists of organized sounds heard by the ear. So how can a language that is written on the paper help students to imitate the sounds. For this purpose, students need something more. English pronunciation comes with listening the sounds, imitating words and repeating them repeatedly. For this purpose computer soft- wares are the best method. For learning English pronunciation, one should adopt the method of new born baby. As a newborn baby does neither know any language nor speaks it. He listens carefully the sounds that are spoken around him from his parents, siblings, etc.. Initially he listen these sounds and then imitates them and after imitating, he tries to speak it. Now if we look at this procedure of child speaking then we see that the child at first listen the words spoken by any other person carefully then he tries to imitate the sound and produce it. The same procedure be adopted in learning the English language and improving pronunciation.

Speaking English is not a great task. Any person can speak it with a little bit effort. The main problem is that no one can pronounce the words like the native speakers. The same is the case with our students. Our students have a little bit knowledge of English language, but they are not been able to pronounce the words accurately like the native speakers. It is totally changed.

1.1. Importance of the pronunciation.

The English language is beautiful if it is embodied with the accuracy of the pronunciation because pronunciation is the thing that can effect directly on the communication [1]. Communication can be easy if the pronunciation is good, it can make us to feel relax and it help us to feel confident and

successful. The main problem that why our students are not been able to pronounce correctly is our school system. Our teachers do not give any importance to pronunciation. They just read the words commonly and do not pronounce it accurately. This is the main reason of poor pronunciation of most of Pakistani students. The pity is that government tried to facilitate the students and teachers. It provides them technologies and computers so that students can use it in their learning but pity is that teachers do not use them properly. One of these facilities is computer, which has been provided to the students by the government. Computer is used for multi purposes. Its different software also helps in improving pronunciation. Improving pronunciation with the help of computer software is CALL (Computer Assisted Language Learning). The search for and the study of the applications of the computers in the language learning and teaching is called CALL. In the modern world, now the role of computer has been totally changed [2]. In past computer was merely just a slideshow. But now it is used for modern language teaching [3]. Computers help in improving the pronunciation, but the question is that how it helps in improving the pronunciation? Pronunciation is an activity that needs repetition. Human beings get bored with this activity or he or she may not been able to pronounce the words correctly. Therefore, the feedback may not be good. This is not in the case of computers. Computers software provides the students an independent learning. They offer some courses to the students and give them a chance to repeat the words. Students repeat the words again and again and during this process computer software also helps in diagnosing their mistakes. It helps them to know that whether intonation is correct or not. It tells about the stress and the sounds. So it gives the students a chance to repeat the words until their pronunciation gets better. With the help of CALL student can focus on their troublesome language form, get plenty of exercise to practice and they can also get immediate feedback.

Computer-Assisted Language Learning (CALL) is of high on the hog to choice of word for teachers and learners because it can provide individualized letter of support and off the top of head feedback on the decorum of a learners' reaction to auto electronic tasks [4]. Various types of personal digital assistant hardware have been approved and gave the once over of the printed material shows an emerging success among style teachers and researchers in the benefits of computer-assisted pronunciation instruction [5,6,7,8]. Some researchers emphasized that the reason of CALL is to offer teachers a number of ways to plan a style lesson by the whole of the exercise and use of technology. Therefore, in this diamond in the rough CALL is bounded as the figure consider of computer technology to schedule and raw material a consolidation of plan for spreading the word definition learning. The technology hand one down in CALL program to the end of time includes courseware, educational software, the World Wide Web and websites.

1.2 Main Research Questions

Main research questions of our study are as under:

- Does CALL really improve the pronunciation of the students?
- Does it remove the fear existing in the mind of the students?

- Will it prove beneficial for the students of secondary school level?
- Is there any facility of CALL in remote areas like Kot Addu?
- Does CALL facilities the English Language teachers to communicate their ideas?

1.3 Statement of the Problem

Some languages like French, Chinese and English are continuously gaining importance. Even English is called the language of trade and business. Just because of this reason, English is also gaining importance in Pakistan also. People, who belongs to different fields tried to learn language. Although they learn the language, but they are not been able to pronounce the words correctly. Just because of this language, Urdu language is losing its importance now. Govt. has decided to make English as a compulsory subject from level 1 to graduate level. But it is regrettable that most of teachers and students and even highly qualified persons cannot pronounces the words accurately and they pronounce like a native speaker. Not only the students even sometimes teachers are not aware of the correct pronunciation of the words. They pronounce the words wrongly. The reason may be that they are confused over t British and American pronunciation and don't know which pronunciation they should adopt. Computer Assisted Language Learning (CALL) may help them to avoid these types of problems. But, the problem is that mostly teachers are not aware about the use of the CALL. Hence, they feel problem.

There are different CALL training programs that help the teacher to use this program effectively. Now the question is whether Pakistani teachers are participating in these programs or not? If they are participating than then it is not certain whether they are utilizing this program in their classrooms. If teachers are fully aware of the uses of CALL programs and using it in the classrooms than the students are improving or not? Is heir pronunciation better than before? These are important questions to be considered. In short, we can say that the traditional methods of teaching are not workable to cope with the present needs of the students. These methods have no capability to improve the pronunciation of the students.

1.4 Objectives of the Study

The objectives of this study are

The main objectives of this study is to improve the pronunciation of the secondary school students in the remote areas like Kot Addu Another objective to change the old method of teaching into the modern method of teaching.

This study will also try to find out the problems that the students are facing now a day.

1.5 Scope of Study

This research develops and applies the CALL approach first time in Pakistan and as such, its scope is wide. This result of this study will likely to open the new way of teaching and improves the method of English teaching at secondary level in Pakistan and other countries, which are using traditional teaching methods of teaching English as a foreign language. It motivates the students to learn modern methods and generate creativity.

It will remove fears existing not only in the mind of teachers but also in the students.

2. Literature Review

Teachers and learners of the second language have a great interest in the Computer Assisted Language Learning (CALL). CALL provides individualized coaching to the students and after that it provides immediate comments on the learner's response to the automated tasks. Sometimes, there was a developing demand to use era for educational purposes and there was also a demand to learn English with special focus on the pronunciation. Diverse styles of PC hardware have been introduced that enhance language instructor and researcher interest in the Computer Aided pronunciation. The researchers to explore the effectiveness of foreign or second language have conducted different research studies. On the other hand, many educators are not willing to accept the technology that still needs the approval of the language coaching community [9]. Keeping in mind this unwillingness, many reasons have been given about restricted ability of PC assisted programs. One of these handicaps is the lack of the theoretical framework that is designed for comparing CALL system [10]. However, teaching field needs innovations. Some researchers has laid stress on the significance of Intonation. The emphasis is on teaching intonation on the discourse level and rejected the idea of intonation on isolated sentence. Various pronunciation trainings focused on the learner's normal ties of intelligibility and comprehensibility. Intelligibility is a thing through which one can judge to what extend listener is actually aware of the utterance. On the other hand, comprehensibility is the perception of the listener. It helps to understand that how difficult it is to comprehend an utterance.

Tendencies are developing to use automatic speech processing to be integrated into pronunciation coaching [11] A number of researchers have investigated the blessings of computer assisted pronunciation Teaching (CAPT) software for boosting English novices' pronunciation. [12] and [13]. Today, internet is working as a pedagogical tool to expand language coaching and the mastering method [13]. Internet primarily is based on substances that offer minimal pairs, tongue twisters, songs, sound animations, step-by means of step phonetic descriptions, and video animations precise to segmental (i.e.consonant and vowel phonemes of English) and Supra-segmental (i.e.pitch, loudness, pace, and rhythm) elements of English pronunciation, they have attracted teachers to infuse colorful, herbal, and interesting teaching substances into their lessons. Laptop Assisted Pronunciation Teaching (CAPT) structures, as an instance, are designed to provide learners with personal, strain-free practice with individualized and immediate feedback on pronunciation. [14]. The advent of CAPT programs has initiated a debate at the relationship between pedagogy and era, and the position of the language instructor inside the lecture room.

3. Computer Assisted Language Learning (CALL)

Language learning is always a matter of great interest for all the students. Students who belong to different areas and countries always tried to learn the language. Sometimes it became very interesting, but sometimes it creates great problem. Students have to face so many difficulties that they get bored and have to learn the language. The reason is that teaching method is so boring that students are get irritated. But now the situation has changed. There are so many

methods that are interesting. These methods attract the students. One of these methods is known as "Computer Assisted Language Learning (CALL)". Initial development of the CALL was based on the behavioristic theory developed by Skinner and Bloomfield. This theory relates to small frames. Students have to cover these frames systematically. When they cover first step, then the teacher allow them to move towards the next frame. But in the computerized world, students are judged and evaluated and after that move ahead but if the students' performance is not good then they are asked to repeat the session again [15].

Language learning is a cognitive process. In past, teaching language was based on the grammatical structure and it came through drill and practice. So the earlier efforts that were made on the universities level in 19950s, were based on the grammatical structure. It also stressed on the grammatical structure through electronic program instruction. Through the World Wide Web (www) students experienced a large amount of human experiences. They interact and communicate with each other and in this way got experience. They expand their skills. CALL provides them wider opportunities and students got a chance to get a number of information from a single source. The students use this information when they need it. It also provides authentic material and greater information.

Technological innovations like tape recorder, radio, film and internet provide authentic language instruction to the students [16].

3.1 Benefits of the CALL

CALL is very beneficial for the students of every field. It makes the language easy and interesting. It attracts the students' attention. Some of its benefits are given below-

- 1. It creates motivation among the students. When different types of activities are provided to the students then there motivation is enhanced.
- 2. It gives them free independent learning. Students centered learning takes place and they became individualized.
- 3. It has an ability to consider a language in the cultural context. Teachers of English should encourage the interpersonal communication from a world stage perspective.
- 4. Its wider range of activities provide the students a chance of drill and practice. Through the drill and practice students repeat different activities and in this way their communication got better. Their interaction got better.
- 5. It develops positive attitude in the students.

3.2 English Language Situation in Pakistan

English in Pakistan is considered as the breath language. It is besides a second style if hand it down by a non-native speaker. Indian and Pakistani users slip into this kind of category. In Pakistan users of English speech pedagogy has least experienced the use of technologies? It has never been integrated at the college level. English is being taught in schools eventually from foremost level. Provinces of Sindh and Punjab had earlier made English as a conclusive tenor for the students of class one in 1994 and 1995 respectively. Federal Bureau of Statistics in its annual publication 'Pakistan Yearly Statistical Book 2011' revealed that, 38,797,000 children were enrolled in 220,029 Primary schools in 2009-10 of the country [14]. Similarly, the

enrolment at tertiary level is also increasing and drop out ratio is decreasing. The growing enrolment at primary level has also increased literacy levels substantially during last one decade. The same situation is tertiary level where thousands of students are doing M.Phil in English linguistics and literature. [15].

This all comparatively reflects the emerging authority of English in the country.

3.3 What is Pronunciation?

There are different definitions of the pronunciation. Each and every scholar defines it differently according to their own choice. Some scholars says that it is a spoken style while some other person refers it as style of utterance. Whatever other person say or think but the reality is that it is the way of talking. We can also say that it is a manner in which someone utters a word. It is regarded as pronunciation. Here one thing is very important is that the spelling doesn't determine or tell us how we can pronounce the words. It is the sound of the words through which we can hear a word or pronounce it. The word" pronunciation" originated from Latin language. In Latin, this word was "pronuntiare" but later on in the Middle English period this word came into being as "Pronunciation" and this means "the way in which we make the sounds of word" .Pronunciation is a thing that is a matter of great importance. If our pronunciation is good, than it can make us the apple of one's eye, but if our pronunciation is pooerr than then the consequences may be very bad. In short, when we are going to communicate with any person in second language than it is not our personality, style or the way that is noticed but it is our pronunciation that is observed and given importance.. If we speak foreign language like natives, we will be praised and respected.

3.4 How CALL helps in improving Pronunciation?

Learning a second language is a matter of great interest for the students. In the pas,t the only method through which they learn the language was to follow their teacher. Although they tried their best to adopt pronunciation like that of the native speaker was a hard nut to crack. Sometimes it seems like a horrible dream for the students to pronounce the words like that of the native speaker. N ow the time and technologies changed. Now there are different technologies that help them to pronounce the words correctly. Computer Assisted Language Learning (CALL). CALL helps the teachers to improve the pronunciation. Teacher delivers lecture through multimedia, processor and web page. Teacher can also show them film of the related topic on the computer. Students can see the actors they hear their pronunciation and try to adopt pronunciation like that of the native speakers. Another chance that computer software provides to students is that of the communication. Students can directly communicate and interact with the students of the native speaker. It became easy for them to adopt pronunciation like that of the native speaker. There is some other software like students hear the pronunciation of the native speaker and then record their own pronunciation in their own voice. After that,

they compare both pronunciations. This software also tells them that in which area they are weak like intonation and stress or etc. It also tells them which sound they have to improve. When learners know their mistakes they tried to overcome these mistakes and consequently their pronunciation is improved.

3.5 Hypothesis of the Study

H1 Computer Assisted Language learning (CALL) will help the students improving their pronunciation.

H2: CALL helps the students speak in a better way and feel confident.

H3: CALL provides them chance to interact with native speaker, and in this way improve their speaking power and vocabulary.

H4: CALL does not only facilitates students but also the teachers.

H5:It helps the teacher to teach the grammar implicitly rather than explicitly.

4. Research Methodology

The methodology that was adopted during this research paper is a mixture of both quantitative and qualitative. It is qualitative in the way that the author asked questions, takes interviews and observe the participants during field research. It is quantitative in a sense that the questionnaire that was filled by the students was further evaluated and analyzed through statistical techniques.

4.1 Research Site

To make research the researcher selected The Allied School Kot Addu Campus as a research site. Kot Addu is although a less developed city, but now it is developing continuously. Now people of Kot Addu are taking a lot of interest in the education that's why now the numbers of Government and private schools are increasing and a large number of academies are also working there to meet the growing need of students.

4.2 Sample of study

We selected secondary school students as the sample of study. Twenty students from the secondary school level were selected and were divided into two groups. These students were both male and female. The two groups in which students were divided named as Experimental group and the Control group.

4.3 CALL practical techniques

During research, we used different CALL techniques, which can be applied to improve the pronunciation of the students. Some of the CALL techniques that were used during the research were stated as under:

4.3.1 MyET

MyET is an Automatic Speech Recognition System (ASRP) that can read aloud and recognize the words. It is based on pronunciation practice program. In this program, students are assigned some speech programs based on the conversation of business, daily routine matter and English news. It is shown in Figure 1.



Figure 1: MyET:Pronunciation Practice program

Students have to select the course of their own choice. Then the conversation starts and students have to repeat the dialogue. The software recorded the voice of the students and then shows the comparison of the students recorded

pronunciation as is reflected in Figure 2.



Figure 2: Comparison of the recorded pronunciationFigure 3 indicates the situation in which area students are feeling difficulty and which sound they are pronouncing

wrong and on which area they have to give more importance.

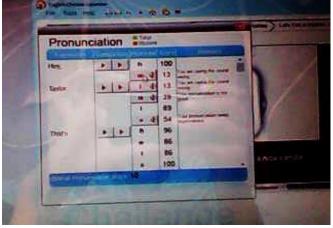


Figure 3: Pronunciation of the words with accurate sounds

The benefit of this system is that it shows the practice of the sound in animation form. Students will also see the animation form of the sound of words they are pronouncing wrong and how they can pronounce it in a correct way. It is shown in Figure 4.

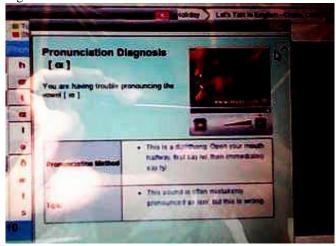


Figure 4: Diagnosis of correct pronunciation

The above figure shows that animation repeats the word again and again and in this way they learn the accurate pronunciation of the word.

4.3.2 Dramatized Video of the Lesson

Another thing that was used the dramatized videos of the lesson. In this thing lesson is changed into the videos alongside the bottom line so that students can get a better idea of the lesson. MPEG video material is synthesized with the help of the Ulead Video-studio. This thing makes learning very interesting. They listen, read and watch their lesson along with the track sounds of the lesson on the bottom line. This thing attracts the attention of the students. They learn actual pronunciation of the lesson like the native speaker.

4.3.3 Encarta World Dictionary

Another technology that was provided to the students was that of the Encarta World dictionary. Encarta World Dictionary gives the students a chance to pronounce the word according to the context. This dictionary is usually included in the encyclopedic dictionaries. This dictionary not only gives the correct accent of the word to the students but also gives the accurate pronunciation of the word and tells the meaning according to the context.

4.4 Procedure

We selected 20 students from a renewed school of Kot Addu. This school has all the facilities including multimedia, which has an important part in the research. After dividing students into two groups: Experimental and Controlled group, we have started their research. The aim of this research was to improve the pronunciation of the students of the secondary schools. The research lasted for about six weeks. At the start of the research, we developed a questionnaire to record the views of the students about the CALL. In next step, students have to go through a pronunciation test. We give them some words and they have to pronounce these words so that we can know about utterance of their correct. Then researchers teach the control group with the same old method of blackboard and chalk and then the experimental group with CALL methodology using computers and multimedia in the

classroom. We used some CALL tools like MyET, Dramatized video of the lesson and the World Encarta Dictionary. After teaching the students with the CALL materials for six weeks, the researcher again takes the pronunciation test to assess whether the improvement has taken place or not. We requested the students to fill the questionnaire again in order to know about the views of the students about the CALL and to assess the level of improvement.

6. Findings and Results

5.1 Pre-pronunciation Test

Pre-research and post research data was collected and analyzed. We gave 10 words to the each group and asked the students to pronounce them in their natural way. The empirical results obtained from this experiment are given in Table 1.and Figure 5.

Table 1	Pre-l	Pronunciation	Test resu	lts
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Experimental	Marks	Controlled	Marks
Student 1	7	Student 1	6
Student 2	7	Student 2	5
Student 3	7	Student 3	5
Student 4	6	Student 4	5
Student 5	6	Student 5	5
Student 6	5	Student 6	4
Student 7	5	Student 7	4
Student 8	5	Student 8	4
Student 9	4	Student 9	3
Student 10	4	Student 10	3
Total Marks	56/100	Total Marks	44/100

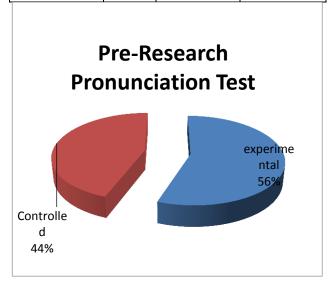


Figure 5 Pre-research pronunciation Test results.

Figure 5 shows the detail of marks of the both groups. It shows that how much marks each individual student has obtained in the pronunciation test. It also shows the difference of marks between two groups. There is a little bit difference between their marks before the use of CALL materials. The words were same for both groups and each student pronounce each word. We continually observe and notice their pronunciation. We taught experimental group CALL techniques and controlled group with same traditional techniques. After six weeks, we took post-pronunciation test again to know about the efficiency of CAL techniques.

5,2 Post-pronunciation Results

To know that whether CALL prove helpful or not and whether it improves the pronunciation of the students we conducted post pronunciation test from the students of both groups. Students were asked to pronounce some words. The results drawn from this test are shown in Table 2 and Figure 6.

Table 2: Post-pronunciation results.

Experimental	Marks	Controlled	Marks
Student 1	10	Student 1	8
Student 2	10	Student 2	7
Student 3	9	Student 3	7
Student 4	9	Student 4	7
Student 5	9	Student 5	6
Student 6	8	Student 6	6
Student 7	8	Student 7	5
Student 8	8	Student 8	5
Student 9	7	Student 9	4
Student 10	7	Student 10	4
Total Marks	76/100	Total Marks	59/100

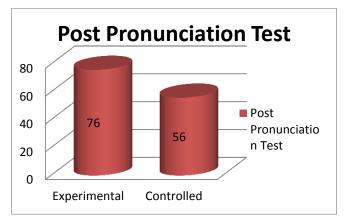


Figure 6 Post-pronunciation results

Figure 6 show the marks difference between the experimental and controlled group. It is clear that after the implementation of the CALL materials on the Experimental group; their pronunciation has improved significantly. In contrast, the controlled group cannot improve. These marks clearly shows that CALL techniques are very useful for improvement of pronunciation and these techniques should be applied widely at secondary school level.

The evidence shows that students attracts towards the CALL techniques and learn from them to improve their pronunciation voluntarily. No coercive method was used during this experimental study of improving pronunciation.

6. CONCLUSION

This study shows that the CALL techniques prove very beneficial for the students of the secondary school level in Kot Addu. It attracts the students' attention and makes their learning interesting. Students feel independent and an autonomous learning environment prevails in the classroom. It proves fruitful not only for the students but also for the teachers. Teachers can also participate in different training programs and they can in this way enhance their experience and then improve their pronunciation. Students feel so much confident that they can use the English Language in their

daily routine life. Better communication enhances their communication skill. CALL technologies can also cope with the needs of the students. It can surely improves the pronunciation of the students and teachers. It helps the students perform better in tertiary education as well as in their practical life.

7. Practical Implications

The government can use the results of this study and formulate policies to implement CALL techniques at secondary school level throughout country to improve the pronunciation of English words, which is one of the main problem of Pakistani students who get their early education in public schools.

REFERENCES

- [1]. Awan, Abdul Ghafoor & Muhammad Yahya. "Critical Discourse Analysis of Ahmad Ali" Twilight in Delhi", Science International (Special issue), Vol 28 (2): 2047-2052, 2016.
- [2].Levy. "Computer Assisted Language Learning." New York: Oxford University Press, 1997.
- [3].Hubbard. "Elements of CALL Methodology: Development, evaluation and Implementation."Pennington (Ed), the power of CALL Hong Kong Athelstan Publications, pp. 15_32, 1996.
- [4].Nagata, N. "Intelligent computer feedback for secondlanguage instruction." The Modern Language Journal, 77, 330-339, 1993.
- [4]. Albertson, Kathleen. "Teaching pronunciation with visual feedback." NALLD Journal, 17.18-33, 1982, 1982.
- [5]. Molholt, Garry, Linda Lane, Joyce Tanner, & Laurie Fischer. "Computer graphics in the language lab." Technological Horizons in Education Journal, 15.6, 74-78, 1988.
- [6].Pennington, M. "Using the Visi-Pitch to illustrate and validate findings in second language research.

 Presentation at the 1988 TESOL Convention, 1988."

- [7]. Chun, Dorothy M. "Teaching tone and intonation with microcomputers." CALICO Journal 7:21,46, 1989.
- [8]. Perdreau, Connie, & Carrie L. Hessney.Pronunciation improvement through visualfeedback. Presentation at the 1990 TESOL Convention, 1990."
- [9]. Kenning, M. M., & Kenning, M. J. (1990). Computers and language learning: Current theory and practice. London: Ellis Horwood.
- [10].Ng, K. L. E., & Olivier, W. "Computer-assisted language learning: An investigation on some design and implementation issues." System, 15(1), 1-17, 1987.
- [11] Hua, Tsai. 2006. "Bridging pedagogy and technology: User evaluation of pronunciation- oriented CALL software". AJET 22:375- 397,2006.
- [12].Kaplan, Jonathan, Sabol, Mark, Wisher, Robert & Seidel, Robert. "The military language tutor (MILT) program: An advanced authoring system". Computer Assisted Language, 1998.
- [13].Kim, In-Seok. (2006). "Automatic speech recognition: Reliability and pedagogical mplications for teaching pronunciation". Educational Technology & Society 9:322-334.2006.
- [14].Lee, Lina. "Using Internet to enhance foreign language teaching and learning". Retrieved May 13, 2000.
- [15].Awan,Abdul Ghafoor & Fahad-ul-Haq."Impact of Management Information System on the Performance of the Organization (Profitability, Innovation and Growth). Journal of Poverty, Investment and Development, Vol. 21: 1-8, 2016.
- [16].Awan,Abdul Ghafoor & Dhamina Kausar. "Impact of Educated Mother on Academic Achievement of her Children: A case Study of strict Lodhran-Pakistan" Journal of Literature, Languages and Linguistics, Vo.12:57-65, 2015.