

## Are Listening Skills Best Enhanced Through the Use of Multimedia Technology

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### **Abstract**

Listening comprehension is essential to L2 learning. Pupils who are able to demonstrate L2 listening skills are able to demonstrate proficiency in other language skills. Due to the relatively unappreciated role of listening in language development, educators and language experts have been actively promoting the equal or emphasized enhancement of listening skills among students. Through multimedia, L2 speakers are provided access to several visual and aural L2 texts via audio, video, the Internet, podcasts, blogs and others.

The use of multimedia in listening instrument aims to ultimately assist L2 learners in understanding L2 within the everyday context.

The use of Computer-Assisted Language Learning (CALL) programmes have been heralded as effective means of developing and enhancing language skills among L2 learners.

However, listening skill teaching has been a neglected area. There has been a general belief that being able to speak, read and write in a given L2, is a parameter to be able to claim that L2 learners are proficient in communication in that language. In view of this assumption, many L2 teachers have ignored the true importance that listening has as a source or oral input from which L2 speakers can acquire the target language.

**Keywords:** listening, enhancement, multimedia technology

## I. Introduction

Listening comprehension is considered as an active process whereby individuals tend to change words into thought with the aim of creating a meaning from the passage. Listening comprehension tends to have a long history, from the readings of analog, phonograph, through the era of the audio tape, and into the realm of digital (Wagner, 2007).

With new technologies appearance, including their influences on people's life aspects and education, language learning and teaching seems to have entered a new area. CALL (Computer Assisted Language Learning) and listening comprehension L2 skill training stand considered bound together for good (Vandergrift, 2007).

Listening comprehension could be viewed as a crucial language skill which learners of language need to develop. Moreover, all other language skills' development becomes interwoven with listening skills. This stands said to be within language learning in both first and second instances (Vandergrift, 1999). Language learning tends to rely on listening. It also tends to play a fundamental role in the acquisition of language, making it possible for an oral interaction between the learners (Smidt & Hegelheimer, 2004). It tends to provide the foundation for all language acquisition/learning facets and plays a long-life role in the communication process. This paper, thereby, intends to outline several impacts of multimedia technology on the development of L2 listening skills (Rubin, 2011).

### a. Language Skills

In language acquisition, there are four skills; speaking, listening, writing, reading. In language acquisition of L1, the first developed skills tend to be speaking and listening, while, in L2, these two have become difficult to learn (Rubin, 1990). During the past, large classes including lacking the opportunity of listening to the language meant, an underdevelopment of oral communication compared to writing and reading. Making the EFL learning materials more engaging and rounded tends to be the introduction of CDs, cassettes and tapes (Jones, 2003).

Use of Aided Computer Language Learning (CALL) and multimedia, now mean that there can be an equal development of listening skills, alongside writing and reading (Rost, 1990). For learners to have the ability to speak, good oral skills stand deemed as essential.

Learners cannot respond or engage in conversation, if they do not understand what seems to be said by people or do not know word pronunciation, or the use of language in context (Redfield, 2003).

### b. The various Impacts of multimedia technology in the development of L2 listening skills

Listening is the first mode of language acquired by children. Listening comprehension stands believed to be a skill highly integrative and, thus crucial in acquiring/learning a language, as well as of great help in getting other language skills (Ramirez-Verdugo, & Belmonte, 2007). In language

teaching, listening seem to be used in referring to a complex process which makes it possible for people to understand a spoken language.

Therefore, listening cannot be taken as only an area of skill in the performance of language, but also a means so critical, through which the second language (L2) becomes acquired (Lin, 2010). The significant role of listening in the acquisition of a language is clear to all. In this, as viewed by some persons, the phase of speaking should stay delayed until the listening comprehension has finished taking place (MacWilliam, 1986). The Priority that tends to be stressed here happens to be that of listening (input), over that of speaking (output).

This as well means that comprehension tends to be much more vital than production, whereby, communication becomes hindered without it. Numerous strategies of interacting tend to be involved in the listening comprehension process (Markham et al., 2001).

With regard to this, there exist a direct relationship between what seems to be contained in speakers' minds and the listening process which stands to affect the information's interpretation. Understanding becomes continually modified as the incoming stimuli tend to interact with the previous inputs including other existing contextual information (Krashen & Terrell, 1983).

### **c.Multimedia and Listening Skills**

Present and previous research concerning L2 listening comprehension is plentiful, coming from a variety of researched areas. These areas include Applied Linguistics, Bilingualism, Cognitive Psychology, and Psycholinguistics, although sometimes blurred are the boundaries between these fields, because every one of them stands influenced by the other (Holden, 2004). The paradigm of the psycholinguistic contemplates listening comprehension typically in a sequential fashion (Ellis, 2001). In this case, the acoustic or input signal is first phonetically processed, followed by recognition of words, then the building of sentences by the listener, who then finally arrives at the discourse level.

This stands as the view currently held by most researchers in the field of applied linguistics in explaining L2 listening comprehension (Guo, & Wills, 2005). Special attention seems to be directed to certain L2 listening process aspects which could eventually lead to the improving of the listening capacity of learners (Gruba, 2004).

Some researchers argue that video use might end up impeding comprehension, due to its supposed distraction potential. They tend to state that, video text's visual aspects can end up distracting the attention of learners from the input of audio, and may, thereby, prevent comprehension (Gruba, 1993). Sufficient evidence tends to exist of the fact that L2 listening comprehension sound training needs to be included in any program of L2 thereby raising the question of what this training needs to consist.

Most researchers firmly believe that such a training course's contents should aim at promoting input processing automatization, whatever the learners' L2 level (Grgurovic & Hegelheimer, 2007). As seems to be found with the case of university students who tend to be enrolled in translation

and interpreting or modern languages, the command of L2 learners of their B language tends to be approaching what stands referred to as mastery.

Surely, as researchers put it, their training of L2 should target a near-native or advanced level on the whole, including listening comprehension competence (Ginther, 2002).

The use of multimedia tools in order for the design and development of language acquisition materials has been a matter of urgency of teachers today.

Technology-based materials are deemed not effective *per se*; as long as they are not designed in a way that is flexible, authentic, and interesting, they will not be of much use to students and teachers alike. This means that unless effective pedagogical strategies are used in concert with technology or multimedia, they will not be as effective as they are originally envisioned (Jones, 2008). Internet-based technology and more specifically digital stories promote L2 learning. They also present new linguistic forms, grammar, phrases, vocabulary and formulaic speech within a meaningful and structured context that supports comprehension of the narrative world.

Many studies have examined the effectiveness of particular multimedia tools in producing language outcomes among students. O'Bryan and Hegelheimer (2007) studied how podcasting is an innovative way of teaching language in the classroom. Not only was the podcast viewed as an easy method by the instructor, the students also viewed podcasting as a positive tool by the students, despite the technical difficulties experienced.

Grgurović and Hegelheimer (2007) implemented a multimedia listening activity using video in order to help students with language comprehension using target language subtitles compared with video with transcripts. The use of captions and subtitles in the video lecture were found to stimulate the participation of students who interacted more frequently with subtitles as help rather than with transcripts. Brett (1995) developed a multimedia language learning software in order to help students communicate in English within the context of business situations. It was found that multimedia use resulted to better listening skills among students in terms of listening for the gist and guessing the meaning from context.

The use of verbal and visual annotations was also found to contribute to more positive outcomes in listening comprehension in a study conducted by Jones (2003). The study showed that students are able to recall information better when aided with verbal and visual aids (Jones, 2003). However, not all studies suggest that multimedia-based instruction is necessarily better than traditional instruction with respect to listening comprehension.

Wang (2010) conducted a quasi-experimental study in China in order to determine whether the use of multimedia in "zero class hours" could lead to better listening comprehension results when compared to teaching in the traditional sense. Using a questionnaire to obtain pre-test and post-test results, the study was able to demonstrate that there was no visible difference in the results of students who undertook multimedia intervention from those who did not. However, the study was able to glean that students in the experimental group were more motivated to learn and did course assignments more frequently and promptly than those in the control group. Other studies have also demonstrated positive association between multimedia instruction in the context of science

courses (Frear & Hirschbuhl, 1999), national achievement tests (Schachter, 1999), and foreign languages (Jones & Plass, 2002; Moyer, 2006; Pujola, 2002).

Studies conducted in European contexts have also been numerous. Digital stories were used to improve listening comprehension of English among 6-year old Spanish students. Using a quasi-experimental research design, Verdugo and Belmonte (2007) explored the effectiveness of digital stories by applying this intervention into the experimental group. The results showed that the experimental group scored significantly higher in listening comprehension than the control group who did not receive multimedia lessons. Punie et al. (2003) conducted a comprehensive literature review of studies from Europe published 2004 and onwards in order to organise results on how technology affects language learning. The 20 studies reviewed were able to demonstrate that the use of ICTs impact language learning positively but went further to say that the use of ICT at home is equally important. Thus, Punie et al. (2003) recommended the consideration of socioeconomic factors when looking at the effectiveness of ICTs in language learning.

In Turkey, a quasi-experimental study was conducted by Isik and Yilmaz (2011) to evaluate the effectiveness of computer-assisted listening instruction on listening comprehension of 21 students. The experimental group which received multimedia-aided instruction scored significantly higher than the control group which received traditional language instruction.

#### **d. Application of Multimedia Tools**

The studies reviewed point out that there is no one multimedia design or syllabus guaranteed to produce positive results. However, there are best practice principles that teachers or course developers could bear in mind when designing or implementing multimedia-based listening comprehension tools. For instance, Ludwig et al. (2004) synthesised several studies and concluded that the effective multimedia presentations are those which incorporate different types of media that interrelate with one another instead of those which are considered "entertaining". Tools which are entertaining were viewed to provide disorientation and cognitive overload (Ludwig et al, 2004). There is also a need to shift from individualised multimedia tools towards more comprehensive L2 programmes that are boosted by technology (Zhao, 2005). Isolated software or gadgets are not considered effective because of their difficulty of adoption. Purely technology-based language learning is said not to be as effective as blended multimedia instruction. Rozgiene et al. (2008) concluded that the most effective technology-enhanced tools for language learning are those that combine face-to-face teaching with electronic tools (Rozgiene et al., 2008). Another recommendation made by researchers is to maximise the Internet because it is a platform that can provide authentic and recent materials pertaining to the target language being studied (Warschauer & Kern, 2000).

The Internet can provide authentic materials which are more motivating for the learner. This could include webcasts, newsroom video clips, videos from YouTube and other providers, digital stories, online newspapers, and others (Kumar & Tammelin, 2008).

Multimedia applications for L2 learning provide a more realistic picture of the new language and culture in the classroom. Digital stories could be useful in developing children's listening skills as

they tend to be visual and interactive. This interactivity may facilitate learning as the children are actively involved in decoding and understanding the stories.

Other researchers have advocated more for individualised listening tools such as MP3 players or computers in order to be better attuned to individual capacities. This is found to be more acceptable when handling students with poor linguistic ability and poor “metacognitive” awareness (Roussel, 2011; Vincent-Derroux et al., 2011).

There are also certain barriers to the effective integration of technology to language instruction. But it is generally agreed that multimedia provides several advantages among which are interactivity, accessibility, authenticity, and integration of text, sound, and visuals (Stockwell, 2007). However, the lack of adequate skills and familiarity, difficulty of adoption of technology, and cultural resistance are said to be obstructions toward the maximisation of the results of technology. Another barrier is the teaching styles of educators themselves; pedagogical practices must be updated and kept flexible by teachers in order not to prevent the learning process from developing. Structural barriers from schools and even the broader educational policy framework can also impede the effectiveness of multimedia-based listening instruction (Thao, 2003)

Exploiting technology in the teaching of listening skills tends to promote the achievement of participants. It tends to function as a facilitator in acquiring newly taught materials.

The bringing of a video projector into the classroom tends to increase not only the interest of the student, but also provides a better presentation chance for the instructors (Gary 2007). Since there will be displayed texts on the screen, a careful attention must, therefore, be taken not to create a situation which would lead the class to be in a passive state, causing the learners to do nothing. Instead, they only watch the scene and ignore the main task (Buck, 2001). Therefore, the written text becomes displayed once or mostly twice for those parts that learners found problems. Video texts use allows listeners to utilize communication’s non-verbal components that can help them in comprehending and processing aural input (Zainol, et al., 2011).

In most of L2 listening situations, the listener has the ability of seeing the speaker. Therefore, it excludes situations like talking on the phone, listening to radio, and listening to loudspeakers among others. In such circumstances, the learners of L2, usually become afraid to speak in public as a result of lacking accuracy and fluency; something which cannot be achieved without listening comprehension mastery (Borras, & Lafayette, 1994).

This enhances the development of constructivism viewpoint (proximal development zone), including developing independence and self-esteem. It as well enables the learners of language to be self-reliant and evoke autonomy. Teachers, therefore, have to be at their best in the creation of a setting which helps in promoting the learning of participants (Yang et al., 2010). There appear usual cases where a number of learners tend to complain about given difficult words or phrases; they come across in their works. Video texts are well appreciated in cases where the tutor or teachers tends to be absent for problem solving as learners can easily overcome the problem (Blasco, 2009).

## II. Methodology

Research design chosen for this study is a quantitative quasi-experimental research approach aimed at comparing the extent to which utilization of multimedia facilitates the development of listening comprehension among students. The participant sample constitutes 50 children aged from 9 to 10 years old; they will be recruited for participation in the study voluntarily, with proper regard to receiving informed consent from them and their parents, and providing them with adequate and full information about the purposes and procedures of research. The sample will include only primary school students enrolled in two separate English classes in a primary school. Since the composition of groups varies across the school, and classes' schedule and content are predetermined by the school's administration, the research will make a purposeful selection of two classes that will be assigned the status of a control group and an experimental group. During the intervention, the control group will be taught by an ELT, while the experimental group will receive instruction from the researcher. The experimental group's curriculum will incorporate the use of MMB instruction materials specifically for the listening comprehension purposes. Each class will have 25 students to ensure the comparability of two study samples.

The intervention lasted 10 weeks during which the participants of the control and experimental groups received different instruction (the control group received regular listening instruction, while the experimental group's teacher actively introduced multimedia materials into instruction). The pre-test can-do statements were provided to learners for them to assess their current command of listening comprehension skills, thus providing the researcher with the benchmark for results' assessment. The pre-test listening assessment also consisted of numerous listening tasks including listening for the overall idea, listening for details, and making inferences from the listened material, which ensured the full set of baseline data on each study participant for the researcher. The dependent variable (the influenced domain) is listening comprehension skills development, whereas the independent variable (the one producing the hypothesized effect) is MMB instruction.

Data analysis was carried out for three sets of statistical data. The first set included data obtained during pre-test and post-test from the students who belonged to the control group; the second set of analyzed data involved pre-test and post-test results of the experimental group; finally, the third set of juxtaposed data was composed of post-test scores of the experimental and control groups. Such an approach allowed the researcher study variances of pre-test and post-test results for each group and compare them. Analysis of the first set demonstrated the effectiveness of non-MMB instruction aimed at the development of listening comprehension skills. Correspondingly, the second set was used to establish if MMB instruction proved effective for the same purpose. The final stage of data analysis was conducted to juxtapose and compare the efficiency of each of the instruction modes after the intervention stage.

## III. Study results

In order to measure the effectiveness of the multimedia technology on advancement of listening comprehension skills, a research study with a control and an experimental group was conducted for a period of 10 weeks at a primary school in Prishtina, Kosovo.

Participants, who constituted to primary school pupils aged from 9 to 10 years old, were initially tested on the distribution of listening skills. The pre-test listening assessment consisted of numerous listening tasks including listening for the overall idea, listening for the gist, and making inferences. The table below shows that their listening comprehension skills were similar.

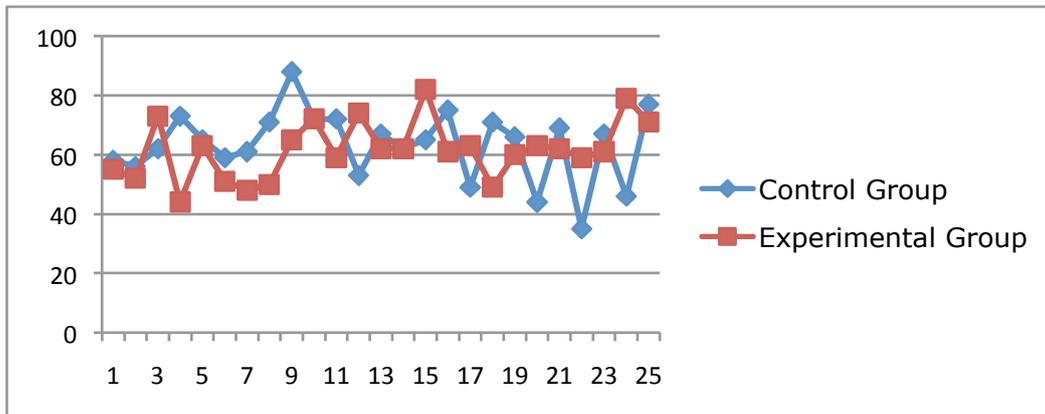


Figure 1. Listening Comprehension Level of Control and Experimental Groups – Pre-Test

During the ten-week intervention, the control group received regular instruction from an ELT, while the experimental group received instruction from another ELT with a curriculum which incorporated the use of MMB instruction materials specifically for listening comprehension purposes. Data collection took place in each of the three stages: pre-intervention testing, intervention, and post-intervention testing. The test developed for the assessment of listening comprehension skills in this study was based on common types of tasks used in KET test (University of Cambridge, 2012, p. 24).

After the period of intervention which lasted for ten weeks, the majority of students in the control group revealed practically similar scores in listening comprehension compared to the pre-test assessment. The mean score of the group showed only a 2.4% progress from the pre-test to the post-test assessment. This slight improvement in listening comprehension skills is a logical outcome of a systematic learning process targeting this skill.

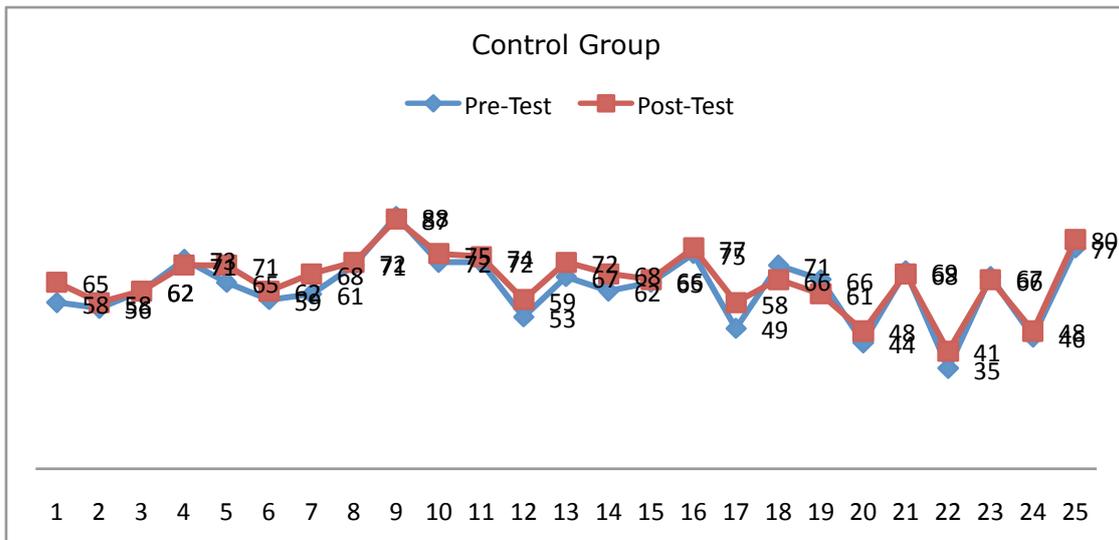


Figure 2. Baseline and Post-Test Results of the Control Group

The experimental group, which received rich multimedia instruction, revealed more than 10% increase in the listening comprehension – a highly significant result in statistical and real-life comprehension proficiency scores for the experimental group students.

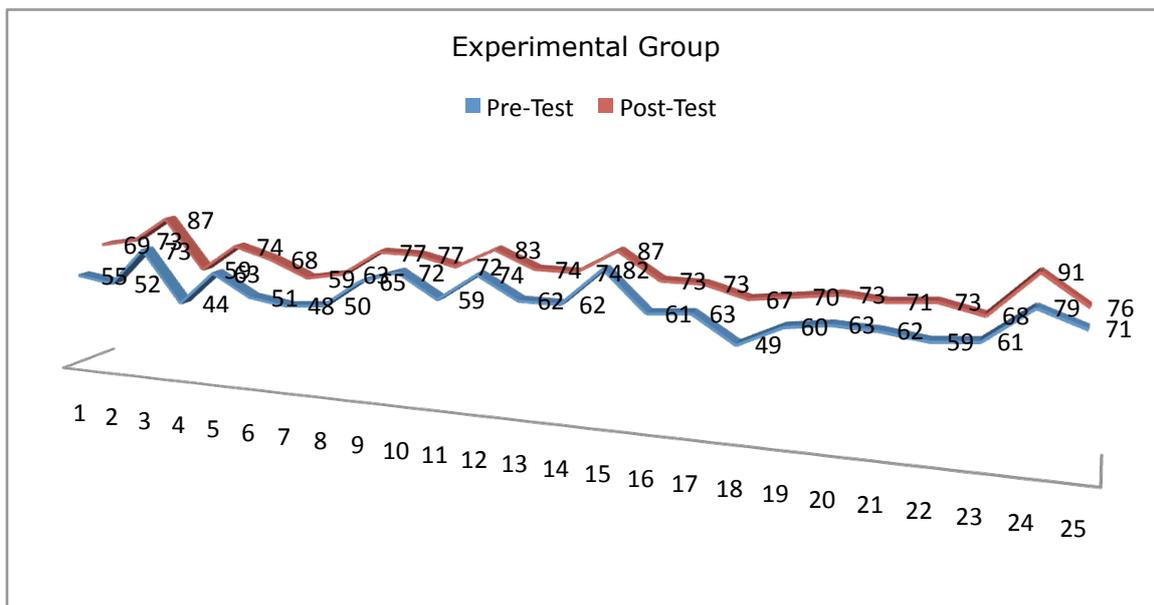


Figure 3. Experimental Group's Pre-Test and Post-Test Scores

The figures of the experimental group participants show that all pupils without exception improved their listening comprehension skills at least slightly.

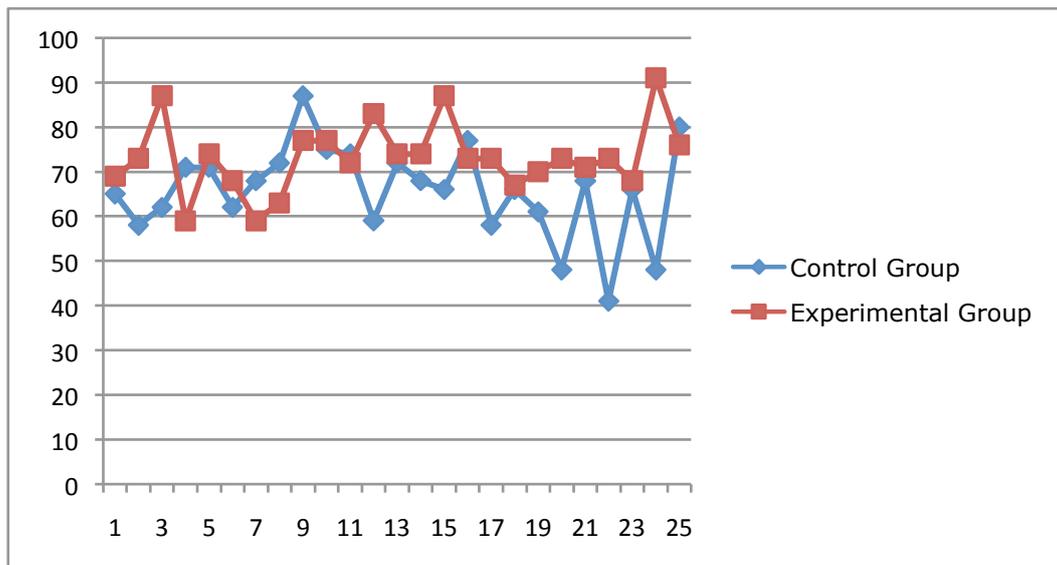


Figure 4. Control and Experimental Groups' Post-Test Scores

Figure 4 presents a clear comparison of both groups in the distribution of post-test scores where there is a clear difference between the control group and the experimental group, with the latter revealing much higher levels of listening comprehension.

This study also verified the main hypothesis of this study that there is a statistically significant difference before and after the course of MMB instruction for teaching L2 listening comprehension in primary schools. The reasons for such tremendous difference in the listening comprehension levels among the students in the experimental group at pre- and post-test stages may be explained by a number of benefits that MMB-enriched instruction provides for both learners and teachers in virtually all aspects of the educational process.

#### IV. Conclusion

It has been claimed by many researchers that applying multimedia tools can develop skilled learners because multimedia can create “a learning environment wherein students practise their language skills and acquire target culture” (Brauer, 2001, p.130).

For language teachers, multimedia provides the opportunity to present course material in a more stimulating, compact, and time-efficient manner (Brinton, 2001). Multimedia tools such as audio, video, computers, software, and Internet materials are considered effective and authentic tools which can help L2 learners successfully apply learning in real-life contexts.

The use of Computer-Assisted Language Learning (CALL) programmes have been heralded as effective means of developing and enhancing language skills among L2 learners. Several studies have been conducted to suggest the positive outcomes of CALL programmes in improving language learning outcomes among students. While computer-assisted instruction has gained prominence, Bax (2003) considers that the stage at which CALL is being implemented falls behind the

“normalisation stage” or the stage where CALL is completely visible and integrated into the school curriculum.

When the learning environment becomes created for language acquisition, the aim becomes developing all of the language aspects. This demands as close the language authentic contextualization as possible. Spoken and written language often appear different, a reflection that needs to be included in the resources used. Materials of audio and audiovisual should be authentic and as relevant as possible. Audio has to be presented in a variety of ways in a bid to ensure engagement and provide a variety. This tends to be crucial during intensive courses.

The challenge, thereby, becomes the identification of authentic accessible multimedia resources which can become integrated into a program considered as overall. This happens in line with structured approaches and material for supporting incidental learning while strong listening skills become developed to help in improving oral communication at the work place.

Listening comprehension tends to be central to the learning of L2. Students having the ability of demonstrating L2 listening skills, have the ability of demonstrating proficiency in the other language skills. With regard to the listening role, seen as relatively unappreciated in the development of language, language experts including educators tend to promote the emphasized or equal enhancement of these listening skills among the students.

L2 speakers, through multimedia, stand provided with access to various aural and visual L2 texts via video, audio, blogs, podcasts, and the internet among others. Putting multimedia into use in listening instrument, stands as a move towards assisting the learners of L2 understand L2 within the daily context.

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