Effectiveness of Instructional Technology for English Language Teaching in Pakistan

Malik Naseem Abbas, Ph.D. Scholar
Saiqa Imtiaz Asif, Ph.D.

INTRODUCTION

Almost sixty per cent of the world population is multilingual. In most of the world, bilingualism or multilingualism is the norm rather than the exception. In the modern world, English is the most widely studied foreign language and Pakistan is no exception to it. Rather, in Pakistan, English is becoming a lingua franca in the field of education.

The history of English language teaching in Pakistan goes back to the time of British rule in India. English was formally introduced as an official language in the Sub-Continent in 1832. Muslims showed reluctance to learn this language but later, due to the campaign of Sir Syed Ahmed Khan, the situation was improved. While after partition, English was used as language for maintaining official documents and it was taught as compulsory

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subject from Class VI onwards but the recent government has declared it compulsory from initial level. Being so important, it becomes necessary that it should be taught effectively so that our students could cope with the increasing demand of proficiency level to communicate with outer world effectively. We know that the advancement in the field of science and technology especially computer, Internet and other instructional technology has revolutionized the field of education and all these sources are being used extensively in the class rooms of advanced countries but, in Pakistan, such technologies are not being used or at least not at vast scale.

In past, various methods and approaches of language teaching were adopted by teachers but one thing was common in all i.e. the teachers adopted authoritarian approach and even the evaluation of the learning of students was based on traditional methods which were least concerned about the conceptual understanding or effective performance of the students rather it was more concerned with the cramming ability of the students. Piaget introduced a theory of learning whereby new information interacts with prior knowledge through a process of assimilation and accommodation (Piaget, 1985). This constructivist view of learning inspired the development of a number of instructional methods (e.g., Learning by Discovery (Shulman & Keisler, 1966); Open-Classroom Learning, (Kohl, 1969); Experiential Learning, (Kolb, 1984); Inquiry Learning (Bateman, 1990) all dedicated to the proposition that learning occurs most propitiously under circumstances of personal inquiry and discovery. These approaches have been supported by new and innovative approaches based on the latest technology, the vast resources and
opportunities that technology has brought about, new tools, and strategies in language teaching and learning.

English is an important language in Pakistan. It is widely used in government offices as official language. Even it is the language of law and constitution. Many of Pakistani schools, colleges and universities use English as a medium of instruction. English language teaching (ELT) has been an important global activity and a large business and industry for the past five decades or so. This has been concurrent with the international role of English language. Language teaching is a difficult task and it is being done through textbooks published by the Text Book Boards and at Intermediate level which comprised of two books i.e. English Book II and a novel (Good Bye Mr. Chips by James Hilton). Most of the teachers use traditional means that is lecture method is used and the students are asked to learn the details of the given text. Most teachers are concerned about the examination pattern and syllabus coverage is the main concern of the teachers without assessing the original ability of the students. More importance is given to reading and writing skills while listening and speaking skills are ignored. Teachers use traditional equipment, i.e. black board and chalk or certain institutes have provided white boards and markers. A few innovative teachers use pictures, cards, newspapers and other materials relevant to the topic to make their students well aware of it. Yet, their main concern is to make the students able to learn the relevant material so that they can go through the examination easily. Least importance is given to the use of Instructional Technology or Instructional Material i.e. use of tape recorder, TV, VCR, Computer, Internet, Overhead projector, multimedia etc. though no one can deny the importance of
such material for effective teaching. And probably the reason behind it is that either such technologies are not available in the colleges or if available, the teachers are reluctant to use it because of no expertise in handling these tools or authorities do not permit them to use it because of the fear of being damaged and they lack funds for their repair. The significance of the present study will be the practice of using instructional technology for English language teaching that could be done with little effort on the part of teacher as well as the educational institutes. The researcher considers it of great importance to highlight those areas of language teaching through instructional technology that have never been focused earlier.

Education and Technology are two words that have close relationship in the realm of research, practice and policy and these include not just attaining comfort with and knowledge of machines but also related literacies including information literacy, visual literacy, digital literacy, critical literacy and media literacy (Holm & Gahala, 2001). If we look broadly at the interface of technology and language teaching, perhaps most potentially rewarding for language teachers is the role of technology in language learning and instruction. For example, we know that electronic storybooks help to improve students’ comprehension and motivation (Mathew, 1997; Doty, Popplewell & Byers, 2001) and that they also provide immediate decoding feedback to students (Labbo & Kohn, 1998; deJong & Bus, 2002; Cazet, 1998; Doty, Popplewell & Byers, 2001). Dual-coding theory (Paivio 1971, 1978, 1990, 1991) provides theoretical justifications for the use of visuals in the instructional presentations. According to the dual-coding theory, human memory is composed of two independent but interconnected coding.
systems. The visual system primarily deals with visual codes, such as images, pictures, concrete objects, or events; the other system, the verbal system, deals with non-visual codes such as words, speech, language, or semantic codes. Generally, each of the systems functions independently but most information processing requires connections and reinforcement between the two systems (Lai, 2000). Generally speaking, visuals are more likely to be processed in both verbal and visual systems, and hence the probability that they are retained in working memory and retrieved later from long-term memory is higher than when the presentation contains verbal information alone (Kobayashi, 1986).

Instructional Technology is a field made up of elements of other fields and there is very little content which is unique. Most of its elements are taken from cognitive and perception psychology, management, communication and systems engineering. The use of Instructional Technology (IT) can help teachers and students to meet the challenges of the future. In order to prepare students for the challenges they will face in future life, teachers and students should be able to use IT in their teaching and learning activities, which may facilitate the development of new skills and high order thinking (Spencer, 1999). As suggested by Spencer (1999) this can be done by providing wider opportunities for dialogue with the physical and social world, leading to the assimilation of information to create mental schemes. It can also help teachers to keep up to date with the developments in their field and education in general (Spencer, 1999). It can help teachers to gain broader perspective and more objectivity through increased interactions, with peers (for example, through discussion groups) and create a better environment for collegial approaches. However, according to BECTA (1999) the learning potential of IT...
is not being realized, because many teachers are not familiar with IT and do not use it in their teaching. Teaching of English Language in Pakistan is very important because it is the language of courts, offices, commerce, technology and other walks of life and being so important, it is necessary that it may be taught effectively so that our students could cope with the increasing demands and standards worldwide.

Following were the major objectives of the study:

1. Evaluation of the effectiveness of Instructional Technology through the assessment of marks gained by the Experimental Group (EG) after teaching them for four weeks with the help of IT.

2. Suggest/Recommend suitable remedies for the improvement of learning process during the teaching of English Language.

**RESEARCH QUESTIONS**

The study was conducted to explore the following:

1. What differences does the use of technology make on the performance of learners of English in comparison with those who have not experienced any teaching with the help of instructional technology?

**LITERATURE REVIEW**

Foreign language (FL) teachers have always been ahead of the curve in integrating technology in FL instruction and learning. The number of computer applications, communications technologies, and sheer volume of offerings on the Internet has grown at
an amazing rate over the past few years in advance countries while in developing countries like Pakistan such innovations are used on a limited scale in private sector. Many FL educators have embraced these new technologies as useful instructional tools. Furthermore, research and practice have shown that teacher’s knowledgeable use of educational technologies in the language classroom can contribute to enhance input processing by bringing context into language teaching (Shrum & Glisan, 2000).

Davis, Bagozzi and Warshaw (1989) developed a theory of ‘action relating to reasons’ (technology acceptance model) based on the work of Fishbein and Ajzen (in Davis et al, 1989) to investigate why some people use computers and what are their attitudes towards them. Moreover, according to Garrett (1991), technology enhanced language learning and teaching allows for further integration of language, literature, and culture. In our second/foreign language methodology courses we may use PowerPoint and Hyper Studio multimedia programs as well as a web design program Dreamweaver 4 and Inspiration software in order to create activities and materials that relate language learning to other disciplines, academic content, and to the world at large. These programs have become common tools in language learning and language teacher preparation programs (Pusack & Otto, 1997).

DATA COLLECTION AND METHODOLOGY

This study was undertaken with a view to gauge feasibility of the use of instructional technology in Pakistani English language classrooms. This was done by synchronizing...
the quantitative (numerical data collected through the mean scores of the pre-test, post-test, retention test and the questionnaires).

As the study was carried out to investigate as to what extent the Instructional Technology is being used in the Pakistani Colleges and with what effects on English Language Teaching. The study was experimental and its aim was to explore as to what extent the English language teachers are using IT for language teaching and what is the effect of use of IT in teaching and the achievement of the students. The sample of the study was eighty students of I.Com. Part II of Punjab College of Commerce, Gulgash Colony, Multan who were divided into two groups i.e. the experimental group and the control group and each group comprised of 40 students. The control group was taught in traditional way while for experimental group, Instructional Technology was used. After the treatment period i.e. four weeks, a post-test was held for both the groups while retention test was administered after one week of the post-test. As far as the scores of pre-test are concerned, it were used to equate the groups i.e. the Experimental Group and the Control Group. Whereas the significance of the difference between the mean scores of the Experimental Group and the Control Group in the pre-test, post-test and retention test scores was found out by applying t-test through SPSS 17.

**MAJOR FINDINGS**

The significance of difference between the mean scores of the CG and EG on pre-test scores in English was found out with the help of application of t-test and the summary of results is presented in Table 1.
H₀  There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the pre-test.

H₁  There is significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the pre-test.

TABLE 1

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>40</td>
<td>20.3000</td>
<td>2.96302</td>
<td>.46849</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>40</td>
<td>20.3250</td>
<td>2.94729</td>
<td>.46601</td>
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</table>

Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
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<td>F</td>
<td>Sig.</td>
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<td>.945</td>
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<tr>
<td>Equal variances not assumed</td>
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Independent Samples Test

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<thead>
<tr>
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<th>t-test for Equality of Means</th>
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<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>Pre Test</td>
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</tr>
<tr>
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</tr>
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</table>

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As table 1 shows that the mean score of both the EG & the CG is 20.3 and 20.33 respectively and the difference between the two means is not significant statistically at 0.05 level so the null hypothesis “There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the pre-test” is accepted and both the groups i.e. the EG and the CG are treated as equal on the variable of the pre-test scores in English.

The significance of difference between the mean scores of the CG and EG on post-test scores in English was found out with the help of application of t-test and the summary of results is presented in Table 2.
**Ho** There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the post-test.

**H1** There is significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the post-test.

**TABLE 2**

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>40</td>
<td>24.4500</td>
<td>3.80923</td>
<td>.60229</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>40</td>
<td>37.2750</td>
<td>6.08903</td>
<td>.96276</td>
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</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
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<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
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<tr>
<td>Post Test</td>
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<tr>
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<td>Equal variances not assumed</td>
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**Independent Samples Test**

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<thead>
<tr>
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<th>t-test for Equality of Means</th>
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<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
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<tr>
<td>Post Test</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.000**</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.000</td>
</tr>
</tbody>
</table>
As the above mentioned table 2 shows that the mean score of both the EG & the CG is 37.275 and 24.45 respectively and the difference between the two means is significant statistically at 0.05 level so the null hypothesis “There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the pre-test” is rejected and the performance of the EG could be treated as better than that of the CG on the variable of the post-test scores in English.

The significance of difference between the mean scores of the CG and EG on retention-test scores in English was found out with the help of application of t-test and the summary of results is presented in Table 3.

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
<th>Lower</th>
<th>Upper</th>
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<td>Equal variances not assumed</td>
<td>-15.09271</td>
<td>-10.55729</td>
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</table>

**Significant \( P<0.05 \)

As the above mentioned table 2 shows that the mean score of both the EG & the CG is 37.275 and 24.45 respectively and the difference between the two means is significant statistically at 0.05 level so the null hypothesis “There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the pre-test” is rejected and the performance of the EG could be treated as better than that of the CG on the variable of the post-test scores in English.

The significance of difference between the mean scores of the CG and EG on retention-test scores in English was found out with the help of application of t-test and the summary of results is presented in Table 3.

\[ H_0 \quad \text{There is no significant difference between the performance of the} \]
\[ \text{Control Group (CG) and the Experimental Group (EG) in the} \]
\[ \text{retention-test.} \]
H1 There is significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in the retention-test.

<table>
<thead>
<tr>
<th>Teaching Method</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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</thead>
<tbody>
<tr>
<td>Retention Test</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>40</td>
<td>30.4000</td>
<td>5.31471</td>
<td>.84033</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>40</td>
<td>38.7000</td>
<td>5.16993</td>
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**Independent Samples Test**

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<thead>
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<td></td>
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<td>Retention Test</td>
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<td>.938</td>
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<tbody>
<tr>
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<td>Sig. (2-tailed)</td>
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<td>Retention Test</td>
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**Independent Samples Test**

<table>
<thead>
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<th>Test Type</th>
<th>Assumption</th>
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<tr>
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<td>-10.63396</td>
<td>-5.96604</td>
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</tbody>
</table>

**Significant** P<0.05

As table 3 shows that the mean score of both the EG & the CG is 38.7 and 30.4 respectively and the difference between the two means is significant statistically at 0.05 level so the null hypothesis “There is no significant difference between the performance of the Control Group (CG) and the Experimental Group (EG) in retention-test” is rejected and the performance of the EG could be treated as better than that of the CG on the variable of the post-test scores in English.

**CONCLUSION**

On the basis of statistical analysis and results shown by this study, the researcher has drawn the following conclusions:

1. Instructional Technology used as supplementary strategy for English Language Teaching was found to be more effective for it increased the interest of the students as well as motivated them to participate more effectively.

2. As far as the performance of the EG is concerned, they showed more interest and acquired the language more effectively than those of the CG because the
students of EG were taught language with the help of concrete examples and the help of IT which played a significant role in the teaching learning process.

3 Better teacher-student interaction and even student-student interaction have provided soothing environment and the use of Laptop, multimedia and computers of the lab played a significant role and showed better results.

4 English Language Teaching with the help of IT and concrete examples proved to be beneficial for both the high achievers and low achievers of the EG as compared to the performance of the students of CG who were taught with traditional method i.e. without the use of any concrete examples and IT.

5 As far as the retention of learning is concerned, the students of EG showed significantly better retention level than that of the CG which was attributed to the use of concrete examples and the use of IT for the EG during the treatment i.e. teaching of English Language to the students of EG with the help of IT for four weeks.

LIMITATIONS OF PRESENT STUDY

It was difficult to find suitable equipment available in colleges because instructional technology is costly and a developing country like Pakistan cannot afford it, yet private colleges are providing this facility to their students. Even the material required for teaching with technology was not easily available which was generated through internet and personal resources for example the film produced by BBC of the novel Good Bye Mr. Chips by James Hilton included in the syllabus by The Punjab Text Book Board was Language in India www.languageinindia.com

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hunted out after great ransacking. The breakdown of electricity was another hindrance, which had spoiled the activity based on the use of instructional technology because alternate facilities like generator and other sources are quite expensive and a country like Pakistan could not afford to provide such facilities to colleges, yet, the researcher is thankful to the administration of Punjab College who has already provided this facility to their students. This study was conducted for four weeks (the treatment i.e. English Language Teaching through the use of Instructional Technology to the Experimental Group) because of shortage of term as the students are more concerned about their final examination which is conducted by the BISE. Eighty students were selected which were divided into two groups i.e. forty each and one forming the Experimental Group while the other the Control Group. The contents of the tests were based on the examination pattern as per the direction of the administration and sweet will of the students as they were over anxious about their examination pattern and concerned about the methods which could help them to grasp more marks while anything which could help them to have better grasp on the language was not appreciated by them so the researcher confined himself only to those contents which were relevant to their course.

References


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