Analysis of the Utilization and Effectiveness of IT in Education at the Secondary Level in Pakistan

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Abstract

Information Technology (IT), while an important area of study in its own right, is having a major impact across all curriculum areas. Easy worldwide communication provides instant access to a vast array of data, challenging assimilation and assessment skills. So, there is no doubt that technical devices have greater impact on education. This study is designed to analyze the utilization and effectiveness of IT in education at the secondary level in Pakistan. To achieve this purpose, a questionnaire was developed to collect data from the students. The intended target population was all the students of secondary level. Out of the whole population, 100 students were selected through simple random sampling technique. The data was analyzed by calculating mean score. It was recommended that the educational institution may pay attention and allocate funds for the instructional technology to make teaching and learning interesting and enjoyable.

Key words: Analysis. Utilization. Effectiveness. Education. Secondary

INTRODUCTION

Information Technology has been used in schools since the first Apple Computers were
introduced. However their impact was limited. As technology has advanced, educational software has become a major influence at all the levels from elementary schools to universities. The ability to connect students together over a network such as the Internet opens up fantastic educational opportunities.

Elementary schools and secondary schools are using computers to play multimedia educational programs to teach the kids.

Effects of the Continuing Developments in Information Technology (IT) on Education

The pace of change brought about by new technologies has had a significant effect on the way people live, work, and play worldwide. New and emerging technologies challenge the traditional process of teaching and learning, and the way education is managed. Information technology, while an important area of study in its own right, is having a major impact across all curriculum areas. Easy worldwide communication provides instant access to a vast array of data, challenging assimilation and assessment skills. Rapid communication plus increased access to IT in the home, at work, and in educational establishments, could mean that learning becomes a truly lifelong activity—an activity in which the pace of technological change forces constant evaluation of the learning process itself.

Significance of IT in Education

- **Access To Variety Of Learning Resources**

In the era of technology, IT aids plenty of resources to enhance the teaching skills and learning ability. With the help of IT, it is now easy to provide audio visual education. The learning resources are being widened. Now with this vivid and vast technique as part of the IT curriculum, learners are encouraged to regard computers as tools to be used in all aspects of their studies. In particular, they need to make use of the new multimedia technologies to communicate ideas, describe projects, and order information in their work.

- **Immediacy To Information**

IT has provided immediacy to education. Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated anywhere at any time. New IT has often been introduced into well-established patterns of working and living without radically altering them. For example, the traditional office, with secretaries working at keyboards and notes being written on paper and manually exchanged, has remained remarkably stable, even if personal computers have replaced typewriters.

- **Any Time Learning**

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Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated. One can study whenever he wills irrespective of whether it is day or night and irrespective of being in India or in US because of the boom in IT.

- Collaborative Learning

Now IT has made it easy to study as well as teach in groups or in clusters. With online we can be united together to do the desired task. Efficient postal systems, the telephone (fixed and mobile), and various recording and playback systems based on computer technology all have a part to play in educational broadcasting in the new millennium. The Internet and its Web sites are now familiar to many children in developed countries and among educational elites everywhere, but it remains of little significance to very many more, who lack the most basic means for subsistence.

- Multimedia Approach To Education

Audio-Visual Education involves planning, preparation, and use of devices and materials that involve sight, sound, or both, for educational purposes. Among the devices used are still and motion pictures, filmstrips, television, transparencies, audiotapes, records, teaching machines, computers, and videodiscs. The growth of audio-visual education has reflected developments in both technology and learning theory. (http)

Audio- Visual aids are those instructional devices which are used in the classroom to encourage learning and make it easier and interesting. Materials like charts, maps, models, film strip, projectors radio, television etc., are called instructional aides. (Rather, 2004)

Audio visual aids are effective tool that “invest the past with an air of reality.” AV aids provide the learners with realistic experience, which capture their attention and help in the understanding of the historical phenomena. They appeal to the mind through the visual auditory senses (Jain, 2004). There is a famous Chinese proverb “one seeing is worth a hundred words.” It is a fact that we receive knowledge through our senses. There is another proverb that “if we hear we forget, if we see we remember, and if we do something we know it.” So it means that use of AV aids makes teaching-learning process more effective. As Kishore (2003) said “AV aids stimulate thinking and understanding.” The use of AV aids in teaching-learning process has many values.

Objectives of the Study

Following were the major objectives of the study:

1. To know the interest of students in Audio visual aids at secondary level.
2. To analyze the utilization and effectiveness of Audio visual aids in teaching learning process at secondary level.
3. To identify the problems in using instructional technology at secondary level.

Method and Procedure
The study was of descriptive research in nature. A questionnaire was developed to collect the data from the students. The intended target population was all the students of secondary level. Out of the whole population, 100 students were selected through simple random sampling technique.

Analysis of Data

The data was analyzed by calculating mean score.

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Statements</th>
<th>Means Score (Student)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Students understand more effectively with the use of instructional technology</td>
<td>4.47</td>
</tr>
<tr>
<td>2.</td>
<td>It develops students in learning</td>
<td>4.30</td>
</tr>
<tr>
<td>3.</td>
<td>Teacher use AV aids in the classroom</td>
<td>2.30</td>
</tr>
<tr>
<td>4.</td>
<td>AV aids play important role in teaching process</td>
<td>3.87</td>
</tr>
<tr>
<td>5.</td>
<td>Students understand more effectively with the use of instructional technology</td>
<td>4.47</td>
</tr>
<tr>
<td>6.</td>
<td>It develops students in learning</td>
<td>4.30</td>
</tr>
<tr>
<td>7.</td>
<td>Teacher use AV aids in the classroom</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Special training for using AV aids is necessary</td>
<td>3.41</td>
</tr>
<tr>
<td>9.</td>
<td>Teachers are trained to use AV aids</td>
<td>2.63</td>
</tr>
<tr>
<td>10.</td>
<td>Use of AV aids help a teacher during teaching process</td>
<td>3.80</td>
</tr>
<tr>
<td>11.</td>
<td>Uses of AV aids provide easy way to teach difficult concepts.</td>
<td>3.41</td>
</tr>
<tr>
<td>12.</td>
<td>AV aids save teacher’s time</td>
<td>3.40</td>
</tr>
<tr>
<td>13.</td>
<td>AV aids provide more information</td>
<td>3.30</td>
</tr>
<tr>
<td>14.</td>
<td>AV aids make teaching process more meaningful</td>
<td>4.50</td>
</tr>
<tr>
<td>15.</td>
<td>Use of AV aids bring change in classroom</td>
<td>4.50</td>
</tr>
</tbody>
</table>
The above Table shows that mean score is more than 3.00 (norm) which indicates that most of the students agreed that use of AV aids are more effective in learning process at secondary level. And it also enhances the teaching and learning process.

RECOMMENDATIONS

1. Majority of the respondents agreed that instructional technology play a vital role in the effectiveness of teaching and learning process. So it is recommended that the educational institutions may give importance to the availability and utilization of the instructional technology at secondary level.
2. Majority of the respondents agreed that the teachers are not trained in using AV aids so it was recommended that the teacher training institutions may provide special training in the area of instructional technology.
3. Majority of the respondents agreed that the institutions are not equipped with the latest techniques of AV aids so it is recommended that the educational institution may pay attention and allocate funds for the instructional technology to make teaching and learning interesting and enjoyable.

References

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