Attitude of Secondary School Teachers towards ICT Literacy and Its Implications in Classroom Teaching

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Abstract
Computers are increasingly widespread, influencing many aspects of our personal, work lives, as well as many of our leisure activities. As more tasks involve human-computer interaction, ICT skills and knowledge have become more positively correlated with both occupational and personal success. It is possible to acquire information through using ICTs and the Internet. Therefore, as we move into a technology-based society, it is important that student's classroom experiences with technology be equitable and unbiased for males and females. In most cases, the teacher is key to effective implementation of the use of ICTs in the educational system and given that teachers have tremendous potential to transmit beliefs and values to students, it is important to understand the biases and stereotypes that teachers may hold about the use of ICTs and the factors that act as facilitators to teachers' positive ICT usage.

Present study was conducted keeping in mind the objectives of comparing the attitude of government and private secondary school science and arts teachers belonging to urban and rural background towards use of ICTs in classroom teaching. The study was carried out on 500 secondary school teachers of rural and urban areas of Amritsar. The result revealed that there exists no significant difference in attitude of secondary school teachers belonging to urban and rural area towards use of ICT. Further results showed that there exists no significant difference in attitude of secondary school teachers towards ICT in classroom teaching.

Key Words:
ICT; Use of ICT; Secondary school teaching

Introduction
One of the common teaching methods that secondary school teachers prefer today is the lecture method. In this the teacher transmits knowledge to the students who sit passively in the classroom and listen. Another common method is the question-and-answer approach, which was developed in order to avoid the boredom caused by lecturers and to provide a more efficient learning environment. On the other hand, case studies allow the students to face the problems that occur in real life. They help to fill the gap between theory and practice through putting the previously learnt concepts and principles into use.

In contrast to the previously described methods, the teacher can use ICT at different times and places according to the characteristics of the subject matter, the students and the available software and hardware. ICT programs can be used for practice, revision, one-to-one instruction, problem solving, or simulations during the applications.

The successful and effective uses of ICT in classrooms depend on several factors; of which teacher acceptance is considered a major factor. Researches indicate that teachers are resistant to use ICT despite the fact that ICT are sufficiently available in their school guarantees the effective use of these technologies.

Rogers defines "the adoption process as the mental process through which an
individual passes from first hearing about an innovation to final adoption". The theory emphasizes the importance to attitudes toward innovation.

Factors that can affect attitudes towards ICT use in schools may include:
- Effects of gender
- Age
- ICT experience
- Computer literacy and
- Psychological factors such as locus of control and personality characteristics.

In this thesis, we emphasized on analyzing the attitude of Secondary School Teachers towards use of ICT in class room teaching. Teachers often view the ICT as a tool to accomplish housekeeping tasks, manage their students more efficiently, and to communicate with parents more easily. The success of student learning with ICT will depend largely on the attitudes of teachers, and their willingness to embrace the technology. Gaining an appreciation of the teachers' attitudes towards ICT use may provide useful insights into technology integration and acceptance and usage of technology in teaching and learning. Positive teacher attitudes towards computing are critical if ICT are to be effectively integrated into the school curriculum. Myers & Halpin (2002).

**Objectives of the Study**

The main objective of this study was to examine the attitude towards use of ICT among secondary school teachers. Since achieving excellence in schools, it is important to ensure that teachers must be able to integrate technology into the curriculum. The present study was conducted with the following objectives:

1. To study and compare the attitude of government and private secondary school teachers towards use of ICT in class-room teaching.
2. To study and compare the attitude of male and female secondary school teachers towards use of ICT in class-room teaching.
3. To study and compare the attitude of science and arts secondary school teachers towards use of ICT in class-room teaching.
4. To study and compare the attitude of rural and urban secondary school teachers towards use of ICT in class-room teaching.

**Design**

In the present investigation descriptive survey method was followed by the investigator. Data was collected on variables such as attitude towards ICT by male and female secondary school teachers of government and private schools.

**Sample**

For collection of relevant data, the sample will comprise 500 Secondary School Teachers (Male/Female) teaching in schools of Amritsar District.

**Method and Procedure**

In order to achieve the stipulated objectives data was collected from the sample of 500 secondary school teachers (Male/Female) teaching in schools of Amritsar district. In the present study Descriptive Survey Method of research was used. Self Framed Questionnaire has been selected as a tool of study. Relevant statistical techniques were employed in order to arrive at generalizations about the study.

**Discussion of Results**

For the achievement of objectives suitable statistical techniques such as Mean, Standard Deviation, Difference between Means and Standard Error of Difference
between Means were calculated for the variables under study. Thereafter, to test whether the difference between Means was significant or not, 't-test' was applied. The results have been embodied in Table 4.1 and the Bar Diagram Fig: 4.1 also depict these values.

**TABLE 4.1 Showing mean, standard deviation, difference between means, standard error of difference between means and t-value of government and private secondary school teachers' attitude towards use of ICT in class-room teaching.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Sample (N)</th>
<th>Mean (M)</th>
<th>Standard Deviation (σ)</th>
<th>Difference between Means (D)</th>
<th>Standard Error of Difference Between Means (σ₀)</th>
<th>t-value</th>
<th>Level Of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude of Government Secondary School Teachers</td>
<td>100</td>
<td>157.25</td>
<td>5.86</td>
<td>0.12</td>
<td>0.80</td>
<td>0.15</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Attitude of Private Secondary School Teachers</td>
<td>100</td>
<td>157.13</td>
<td>5.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results obtained after analysis in table can be graphically presented as in the figure below:

**Figure 4.1 : Bar Diagram showing the Mean and Standard Deviation of Attitude Government and Private Secondary School Teachers Towards Use of ICT in Class-Room Teaching.**

This implies that there is no significant difference in the attitude of government and private secondary school teachers towards use of ICT in class-room teaching. The insignificant result
may be attributed to the teachers of both the categories viz Government and Private Schools being equally aware of use of the ICT in class room teaching.

II. It was further analysed that whether gender differences affect the attitude of teachers towards use of ICT in classroom teaching. The results obtained after analysis has been given in table 4.2

<table>
<thead>
<tr>
<th>TABLE 4.2 Showing mean S.D, , SED means and t-value of male and female secondary school teachers' attitude towards ICT in class-room teaching.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Attitude of Male Secondary school Teachers</td>
</tr>
<tr>
<td>Attitude of Female Secondary School Teachers</td>
</tr>
</tbody>
</table>

The above results can be graphically presented as in the figure below:

**Figure 4.2 : Bar Diagram showing the Mean and Standard Deviation of Attitude of Male and Female Secondary School Teachers Towards Use of ICT in Class-Room Teaching**

**Discussion of Results**

In the light of the analysis and interpretation of data following results were drawn:

1. There is no significant difference in the Attitude of Government and Private Secondary School Teachers Towards Use of ICT in Class-Room
Teaching as 't' value between mans of the two groups – Private and Government Secondary School Teachers came out to be 0.15 which is insignificant at 0.05 and 0.01 levels of significance.

2. There is no significant difference in the Attitude of Male and Female Secondary School Teachers Towards Use of ICT in Class-Room Teaching as 't' value between means of the two groups – Male and Female Secondary School Teachers came out to be 0.46 which is insignificant at 0.05 and 0.01 levels of significance.

3. There is no significant difference in the Attitude of Science and Arts Secondary School Teachers Towards Use of ICT in Class-Room Teaching as 't' value between Means of the two groups – Rural and Urban Secondary School Teachers came out to be 2.70 which is insignificant at 0.05 and 0.01 levels of significance.

References


