A Study of the Attitude of the Secondary School Teachers towards ICT With Respect to Teaching Experience and Professional Qualification

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Abstract:
The present study attempts to find out the attitude of secondary school teachers of Aizawl district, Mizoram towards ICT. It also tries to find out whether teaching experience and professional qualification has affect on the teachers’ attitude towards ICT. It is found that the teachers have positive attitude towards ICT and also that there is no significant difference between junior and intermediate teachers, intermediate and senior teachers and junior and senior teachers. It is also found that educational qualification does not affect the teachers’ attitude towards ICT.

Key words: Attitude, Information and communication technology(ICT), Secondary school teachers, teaching experience, professional qualification

Introduction
Growth of ICT brought in rapid changes in various fields. It had also made entry into school education because of its appropriateness, applicability and versatility in use for classroom teaching. It is well recognized that ICT has great potential for improving the teaching learning process. It facilitates individualized learning and develops problem solving skills. Its interactive nature motivates students to learn. Educationists and teachers believe that with the help of ICT, quality of education given to the students can be significantly improved. The National Policy on Education (NPE) 1986, as modified in 1992, stressed the need to employ educational technology to improve the quality of education. The policy statement led to two major centrally sponsored schemes, namely, Educational Technology (ET) and Computer Literacy and Studies in Schools (CLASS) paving the way for a more comprehensive centrally sponsored scheme – Information and Communication Technology at Schools in 2004

Rationale of the study
Knowledge of ICT and use of ICT skills in teaching and learning have become imperative for today’s teacher educator. ICT integration in institutions is being perceived as a necessity and is growing exponentially. The pervasive use of technology in all spheres of life, the knowledge economy and the paradigm shift together, generate demands on the institutions to adopt ways that help inculcate 21st century skills amongst students. In order to integrate ICT in teacher education institutions, the first need is to study and assess the teacher educators’ attitude. It is the need of the hour to examine and assess the attitude of teacher educators towards Information and Communication Technologies (ICT). As this was the case, the present study is proposed.

Research Questions
1. What are the attitudes of Secondary School teachers towards ICT?
2. Is there any difference in the Attitudes of ICT among Secondary School teachers with respect to teaching experience?
3. Is there any difference in the Attitudes of ICT among Secondary School teachers with respect to educational and professional qualification?

Objectives
1. To study the attitude of Secondary school teachers towards Information and Communication Technologies (ICT).
2. To compare the attitude of secondary school teachers towards ICT with respect to their teaching experience.
3. To compare the attitude of secondary school teachers towards ICT with respect to their professional qualification.

Hypotheses
1. There is no significant difference between junior and intermediate secondary school teachers on their attitude towards ICT.
2. There is no significant difference between junior and senior secondary school teachers on their attitude towards ICT.
3. There is no significant difference between intermediate and senior secondary school teachers on their attitude towards ICT.
4. There is no significant difference between trained and untrained secondary school teachers on their attitude towards ICT.
Review of related literature
Maria Kyriakidou et al (1999) found that majority of student-teachers in Cyprus have positive attitudes towards computers for personal use. More than 60% of the Cypriots revealed not only that they like working with computers but also that they have confidence working with them.
Sarangi (2003) found that teacher educators have a low positive attitude for ICT though not negative. Teacher educators had a limited idea about how the available ICT equipments could be used in teaching-learning situation.
Hew & brush, (2007) in their study found that negative attitudes of teachers and the limited knowledge of teachers about technology integration are the main barriers for the technology integration in education.
Ravindaranath (1993) studied “Attitude of DIET trainees toward use of Computer’. The result shows that the DIET trainees have a positive attitude towards the use of computer in teaching learning process.
Mehra and Newa (2009) conducted a study on “Schoolteachers” Attitude towards Information and Communication Technology (ICT)”. The schoolteachers, on the whole, exhibited positive attitude towards ICT, so ICT must be given higher priority in teacher education curriculum, so that the future teachers can cope with various challenges in education system, more specifically the new roles of teachers in ICT based teaching-learning system. In his study on, “Teacher Competencies for the Use of Information and Communication Technology”, Husain (2010) found that, teachers have a positive attitude towards ICT and the teachers think that using ICT skills in developing and presenting information is essential technical competency that teachers need to require.
Ndibalema, P. (2014) on his study entitled “Teachers attitude towards use of ICT” result indicated that the teachers have a favorable attitude towards the use of ICT.

Research design
The present study is a descriptive survey technique which involves the collection of primary data about subjects through the use of a questionnaire.

Sample
The sample consists of 456 Male and 344 Female teachers i.e. 800 teachers, 52 per cent of the Secondary Teachers of Aizawl Districts, Mizoram.

Tool
Attitude Scale towards Information and Communication Technology (ICT) in Education (by Prof. Abdukafi Albirini, The Ohio State University, 2004 adapted)

Mode of data collection
The investigators personally visited various schools in Aizawl city and villages in rural areas and administered the questionnaire to the selected Secondary School teachers of Aizawl district, Mizoram.

ANALYSIS AND INTERPRETATION OF THE STUDY
Table 1  A comparative study of the attitude towards ICT between Junior and Intermediate Teachers in Aizawl District.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>SEM</th>
<th>T-value</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior</td>
<td>256</td>
<td>75.73</td>
<td>8.128</td>
<td>.539</td>
<td>.727</td>
<td>.741</td>
<td>NS</td>
</tr>
<tr>
<td>Intermediate</td>
<td>301</td>
<td>76.27</td>
<td>9.013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 reveals that the ‘t’ value for the significance of difference between the Mean attitude scores of Junior and Intermediate Teachers of Secondary Schools towards ICT comes out to be 0.741 which is not significant and it can be said that there is no significant difference between the Junior and Intermediate Secondary School Teachers in their attitude towards ICT. Therefore, the Hypotheses that there is no significant difference between Junior and Intermediate Secondary School Teachers on their attitude towards ICT is retained.

Table 2  A comparative study of the attitude towards ICT between Junior and Senior Teachers in Aizawl District.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>SEM</th>
<th>T-value</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior</td>
<td>256</td>
<td>75.73</td>
<td>8.128</td>
<td>1.080</td>
<td>.761</td>
<td>1.419</td>
<td>NS</td>
</tr>
<tr>
<td>Senior</td>
<td>243</td>
<td>76.81</td>
<td>8.842</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that the ‘t’ value for the significance of difference between the Mean attitude scores of Junior and Senior Teachers of Secondary Schools towards ICT comes out to be 0.741 which is not significant at any level. Therefore, the Hypotheses that there is no significant difference between Junior and Senior Secondary School Teachers on their attitude towards ICT is retained.

Table 3 A comparative study of the attitude towards ICT between Intermediate and Senior Teachers in Aizawl District.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>SEM</th>
<th>T-value</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate</td>
<td>301</td>
<td>76.27</td>
<td>9.013</td>
<td>.542</td>
<td>.769</td>
<td>.704</td>
<td>NS</td>
</tr>
<tr>
<td>Senior</td>
<td>243</td>
<td>76.81</td>
<td>8.842</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table reveals that the ‘t’ value for the significance of difference between the Mean attitude scores of Intermediate and Senior Teachers of Secondary Schools towards ICT comes out to be 0.704 which is not significant at any level. Therefore, the Hypotheses that there is no significant difference between Intermediate and Senior Secondary School Teachers on their attitudes towards ICT is retained.
Table 4 A comparative study of the attitude towards ICT between Trained and Untrained Teachers in Aizawl District.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>MD</th>
<th>SEM</th>
<th>T-value</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained</td>
<td>477</td>
<td>76.48</td>
<td>9.076</td>
<td>.532</td>
<td>.612</td>
<td>.868</td>
<td>NS</td>
</tr>
<tr>
<td>Untrained</td>
<td>323</td>
<td>75.94</td>
<td>8.079</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table reveals that the ‘t’ value for the significance of difference between the Mean attitude scores of Trained and Untrained Secondary School Teachers towards ICT comes out to be 0.868 which is not significant. Therefore, the Hypotheses that there is no significant difference between trained and untrained Secondary School Teachers on their attitude towards ICT is retained.

Major findings:
1. Secondary School teachers of Aizawl District had positive attitude towards ICT.
2. Senior teachers have the highest mean score in their attitude towards ICT, followed by Intermediate teachers, and Junior teachers have lowest mean score.
3. No significant difference was found between Junior and senior, junior and intermediate, and intermediate and senior teachers.
4. No significant difference was found between Trained and Untrained, teacher on their attitude towards ICT.

Discussion
In the present study it has been found that the Secondary School teachers of Aizawl District, Mizoram had positive attitude towards ICT. Supporting to the findings, Ravindranath (1993) also found that DIET trainees have a positive attitude towards the use of computer in teaching learning process and Khasuwneh and Amalabdullah (1989) also found that the majority of the secondary level students developed positive attitude towards computer learning and computer use. Also Maria Kyriakidou et al (1999) found that majority of student-teachers in Cyprus have positive attitude towards computers for personal use. Mehra &Newa (2009), Hussain (2010), and Ndibalema (2014) also found that school teachers had positive attitude towards ICT. Contradicting the present finding Hew & Brush (2007) found negative attitudes of teachers towards ICT and Sarangi (2003) also found that teacher educators have a low positive attitude for ICT though not negative.

Conclusion
Information and Communication Technology is relevant in all walks of life. Having right attitude towards ICT and its usage can not only yield benefit for teachers but also to the students. The successful implementation of educational technologies depends largely on the attitudes of teachers, who eventually determine how they are used in the classroom. Teacher’s attitudes are a major enabling/disabling factor in the adoption of technology. It was also found that teachers who have positive attitudes toward technology, feel more comfortable with using it, and usually incorporate it into their teaching. Any successful transformation in educational practice requires the development of positive user attitudes toward the new technology. The development of teacher’s positive attitudes toward ICT is a key factor, not only for enhancing ICT integration, but also for avoiding teacher’s resistance to computer use.

Reference