A Study On The Usage Of ICT By Secondary School Teachers In Kurnool District

<table>
<thead>
<tr>
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Abstract

In recent days most of the secondary schools in government and private sector are equipped with computers and projectors in Kurnool district. i.e.) these are integral part of ICT and are used by teachers. The role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century. ICT generally has a positive impact on teaching and learning situations. The adoption and use of ICTs in education have a positive impact on teaching, learning and performance of students. The purpose of this study is to analyze what is happening at schools regarding the integration and use of information and communication technologies (ICT) by teachers and to examine teacher’s perceptions about what teaching and learning processes can be improved through the use of ICT. In this present study we want to bring out the variation among teachers in using ICT based on the variables like management, locality, medium of instruction, age, qualification, experience, and subject of teaching. The findings of this study revealed that all the teachers are having the same capability of using ICT.
1. INTRODUCTION

The Ministry of Human Resource Development (MHRD), Government of India and the Indian Span Research Organization (ISRO) took a path breaking policy decision to launch a dedicated educational satellite, in which the use of ICTs can make substantial changes both in teaching and learning. According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology. The use of ICT in education lends itself to more student-centered learning settings. CT in education can help to improve memory retention, increase motivation and generally deepens understanding. It is also believed that the use of ICTs in education could promote deep learning and allow educators to respond better to different needs of different learners. The effective integration of technology into classroom practices poses a challenge to teachers and administrators. 21st century is the age of Information and Communication Technology. All over the globe, there is a trend to use ICT in the teaching learning process. Teachers in this sector are commonly faced a range of barriers that affect the use of ICT are dissatisfaction with the internet connection speed, requiring better technical maintenance and support of ICT within school, Teachers lacking sufficient computer skills and difficulty in finding adequate learning materials for teaching. The Information and Communication Technology (ICT) in Schools was launched in December, 2004 and revised in 2010 to provide opportunities to secondary stage students to mainly build their capacity on ICT skills and make them learn through computer aided learning process. The Information and Communication Technology (ICT) in schools have been subsumed in the Rashtriya Madhyamik Shiksha Abhiyan (RMSA). Now ICT in Schools is a component of the RMSA. To promote computer enabled learning and usage of ICT in teaching in Government and Government aided Secondary and Higher Secondary Schools has provision for instituting the National Award for innovative use of ICT to motivate the Teachers and Teacher Educators for innovative use of ICT in teaching-learning.

2. OBJECTIVES

I. To study the ICT usage by secondary school teachers.
II. To study the usage of ICT by secondary school teachers basing on their age, locality, qualification, gender, management, experience, medium and subject dealing.

3. HYPOTHESIS

I. Usage of ICT changes due to their gender.
II. Usage of ICT changes due to their profession.
III. Usage of ICT changes due to their locality.
IV. Usage of ICT changes due to their qualification.
V. Usage of ICT changes due to their age.
VI. Usage of ICT changes due to their teaching experience.
VII. Usage of ICT changes due to their medium.
VIII. Usage of ICT changes due to their subject.

4. SAMPLE AND TOOL
A self-prepared tool was administered and standardized with five point rating scale containing answers 1,2,3,4 and 5 giving the score as same.

5. ANALYSIS AND INTERPRETATION
Research hypothesis 1: ICT usage of government and private teachers are significant.
Null hypothesis 1: There is no significant difference between ICT usage of government and private teachers.

Table 1: Showing the significant difference between government and private secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Management</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage Of ICT</td>
<td>Government</td>
<td>115</td>
<td>8.03</td>
<td>1.70</td>
<td>0.9417</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>85</td>
<td>7.78</td>
<td>1.69</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 2: ICT usage of rural and urban teachers is significant.
Null hypothesis 2: There is no significant difference between ICT usage of rural and urban teachers.

Table 2: Showing the significant difference between rural and urban secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Locality</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>Rural</td>
<td>110</td>
<td>8.06</td>
<td>1.60</td>
<td>0.8661</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>90</td>
<td>7.86</td>
<td>1.79</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 3: ICT usage of Telugu and English medium teachers is significant.
Null hypothesis 3: There is no significant difference between ICT usage of Telugu and English medium teachers.

Table 3: Showing the significant difference between Telugu and English medium secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Medium</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>Telugu</td>
<td>100</td>
<td>8.05</td>
<td>1.81</td>
<td>0.6688</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>100</td>
<td>7.89</td>
<td>1.56</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 4: ICT usage of below 35y and above 35y age teachers are significant.
Null hypothesis 4: There is no significant difference between ICT usage of below 35y and above 35y age teachers.

Table 4: Showing the significant difference between below 35y and above 35y secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Age</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>Below 35</td>
<td>120</td>
<td>7.88</td>
<td>1.70</td>
<td>0.1103</td>
</tr>
<tr>
<td></td>
<td>Above 35</td>
<td>80</td>
<td>7.85</td>
<td>1.61</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 5: ICT usage of PG and UG qualified teachers are significant.

Null hypothesis 5: There is no significant difference between ICT usage of PG and UG qualified teachers.

Table 5: Showing the significant difference between PG and UG qualified secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Qualification</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>PG</td>
<td>50</td>
<td>7.84</td>
<td>1.85</td>
<td>0.5565</td>
</tr>
<tr>
<td></td>
<td>UG</td>
<td>150</td>
<td>8.01</td>
<td>1.65</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 6: ICT usage of B.Ed. and M.Ed. qualified teachers are significant.

Null hypothesis 6: There is no significant difference between ICT usage of B.Ed. and M.Ed. qualified teachers.

Table 6: Showing the significant difference between B.Ed. and M.Ed. qualified secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Professional qualification</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>B.Ed.</td>
<td>191</td>
<td>7.98</td>
<td>1.69</td>
<td>0.3486</td>
</tr>
<tr>
<td></td>
<td>M.Ed.</td>
<td>9</td>
<td>7.78</td>
<td>1.72</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 7: ICT usage of below 5y and above 5y experience teachers is significant.

Null hypothesis 7: There is no significant difference between ICT usage of below 5y and above 5y experience teachers.

Table 7: Showing the significant difference between below 5y and above 5y experience secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Experience</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>Below 5years</td>
<td>80</td>
<td>7.88</td>
<td>1.59</td>
<td>0.6803</td>
</tr>
<tr>
<td></td>
<td>Above 5years</td>
<td>120</td>
<td>8.05</td>
<td>1.81</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

Research hypothesis 8: ICT usage of arts and science teachers are significant.

Null hypothesis 8: There is no significant difference between ICT usage of arts and science teachers.
Table 8: Showing the significant difference between arts and science teaching secondary school teachers with respect to usage of ICT

<table>
<thead>
<tr>
<th>ICT dimension</th>
<th>Subject</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage of ICT</td>
<td>Arts</td>
<td>110</td>
<td>7.88</td>
<td>1.70</td>
<td>-1.5427</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>90</td>
<td>8.38</td>
<td>1.76</td>
<td></td>
</tr>
</tbody>
</table>

Not significant at 0.05 & 0.01 level of significance. The null hypothesis is accepted.

6. FINDINGS FROM THE PRESENT STUDY

i.) There is no significant difference between usage of ICT of government and private teachers in Kurnool district.

ii.) There is no significant difference between usage of ICT of rural and urban teachers in Kurnool district.

iii.) There is no significant difference between usage of ICT of telugu and English medium teachers in Kurnool district.

iv.) There is no significant difference between usage of ICT of below 35y and above 35y age teachers in Kurnool district.

v.) There is no significant difference between usage of ICT of PG and UG qualified teachers in Kurnool district.

vi.) There is no significant difference between usage of ICT of B.Ed. and M.Ed. qualified teachers in Kurnool district.

vii.) There is no significant difference between usage of ICT of below 5y and above 5y experience teachers in Kurnool district.

viii.) There is no significant difference between usage of ICT of arts and science teachers in Kurnool district.

7. CONCLUSIONS

i.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their management i.e.) government and private teachers have same efficiency in usage of ICT.

ii.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their locality i.e.) rural and urban teachers have same efficiency in usage of ICT.

iii.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their medium of instruction i.e.) telugu and English medium teachers have same efficiency in usage of ICT.

iv.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their age i.e.) below 35y and above 35y age teachers have same efficiency in usage of ICT.

v.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their qualification i.e.) PG and UG qualified teachers have same efficiency in usage of ICT.
vi.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their professional qualification i.e.) B.ED. M.ED. qualified teachers have same efficiency in usage of ICT.

vii.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their experience i.e.) below 5y and above 5y experience teachers have same efficiency in usage of ICT.

viii.) Usage of ICT of secondary school teachers in Kurnool district are not changes due to their subject teaching i.e.) arts and science teachers have same efficiency in usage of ICT.

8. SUGGESTIONS

i.) Special ICT classes are compulsory for male and female teachers to enhance their skills to the latest technologies.

ii.) Science and maths teachers are always having high usage skills than arts and language teachers. What are the reasons behind for this aspect? The further studies on this will make all teachers as best teachers.

iii.) Majority of the teachers are not used computers for teaching-learning process sufficiently due to lack of time and burden of syllabus.

iv.) If all the teachers are familiar with the software then they will be able to assess the student’s performances easily.

v.) A small percentage of schools achieved high levels of effective use of ICT to support and change the teaching and learning process in many subject areas.

vi.) The studies which tried to establish a link between the use of ICT and students’ results in exams are very important for further quality education in levels.

vii.) ICT has positive impact on students’ performances in secondary schools particularly in science and less in arts. Schools with higher level of e-maturity show a rapid increase in performances in scores compared to those with lower level.

9. REFERENCES


