EXAMINING HIGH SCHOOL TEACHER’S ATTITUDE TOWARDS ICT USE IN EDUCATION

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Abstract: The present study intends to find out high school teachers’ attitude toward use of ICT in teaching learning process. The present study is non-experimental descriptive survey design was employed to find out the teachers’ attitude use of ICT in teaching process. In addition to it researcher also investigated whether attitudes significantly differ with respect to gender. The participants of the study were 40 High school teachers of Karwar taluka, Uttar kannada district of Karnataka state. The study revealed that teachers have high level of positive attitude toward use of ICT in education but the gender does not makes any difference in attitude of teacher toward its use in education. Yet scholars, policy makers and concern authority need to provide training programme for teachers so that the anxiety which they have can be eliminated so that they can give best to the society by which nation can be strengthened.

Keywords: ICT attitude, Teachers attitude, ICT anxiety.

INTRODUCTION

The word technology refers to the knowledge, making and usage of tools, techniques and methods in order to solve a problem or improve a pre-existing solution to achieve a goal or perform a specific function. It is one of the important innovation that man has invented so far, which has pervaded in every domain of human life. Education is not except from it. Earlier, technology in education was a debatable topic amongst the society. Everyone had their own views on modernizing education and making it technology aided. Gradually as technology was embraced by the educational institutes, our society realized the importance of technology in education during covid 19 pandemic. ICT in education mainly has four phases of evolution. During first phase (late 1970s–early 80s) computer were introduced in classroom. The second phase (late 1980–early 1990s) computer based training with multimedia. During third phase (early 1990) World Wide Web was introduced, wherein internet was used in teaching to update the knowledge on day today bases. In the fourth phase (1990s – early 2000s) internet based teaching got matured in the form of E-learning.
National Policy on Education had emphasized the need of computer literacy in secondary education for qualitative improvement of education. NCF-2005 suggested for use of technological innovation to meet the learning requirement of children with special need. NCFTE-2009 gave due importance to ICT in schoolings well as to e-learning for the wider dissemination of information.

REVIEW OF RELATED LITERATURE

1 Sánchez et al. (2017), conducted a quasi experimental study on “Service Teachers’ Attitudes towards the Use of ICT in the Classroom” to investigate teachers attitude toward use of ICT in classroom. For this purpose 170 teachers from kindergarten to high school were surveyed and data were collected from them. Qualitative data were also collected by interviewing teachers about their motivation and belief toward ICT. Descriptive statistics like ANOVA, Student’s t test and Chi Square were used to analyze the data. The result showed that teacher attitude toward ICT was highly positive.

2 Semerci and Kemal Aydm (2018), undertook a study on “Examining High School Teachers Attitude towards ICT Use in Education” The participants of the study were 353 teachers working in different high school in Ankara for the academic Teachers have high level of attitude towards ICT use in their classes, yet there is no significant difference between teachers ICT willingness by their gender, age, teaching experience and ICT experience.

3 Yasmin Shafeeq and Mohd Imran (2019) made a study on “Teacher’s attitude towards the use of Information and Computer Technology (ICT) in Classroom Teaching” for this purpose data was collected through an attitude scale of Information and Communication Technology which was developed by the investigator itself. The collected data was analyzed by using statistical methods like Mean, Standard Deviation, t-test and ANOVA. The sample of the study was comprised of secondary school teachers of Aligarh Muslim University. Data analysis showed that most of the teachers have favourable attitude towards ICT. It was also revealed from the study that Male teachers possess slightly more favourable attitude than female teachers towards Information and Communication Technology. The study also showed that teachers having Science/Mathematics background have a more favourable attitude towards Information and Communication Technology (ICT) than the teachers with Arts/Social Science background.

4 Lalit Sharma (2019) points out from his study on “Teachers’ Attitude towards Integrating ICT in Teacher Education” that, teacher-educators have positive attitude to some extent towards the ICT and its tools and devices usage in teacher education process. The study also exhibit that teacher-educators have lack of training and technical support.

5 Manpreet Kaur (2019) conducted a survey study on "Role of Teachers' Attitude and Beliefs regarding use of ICT in Indian Classrooms" and found that Indian teachers have positive attitude towards the use of ICT in class room. But they face problem for its use due to limited modern and technological infrastructure, low technical support, lack of effective training rigid time table and fixed curriculum. Further, this research suggested that there are no gender differences in the use of ICT by teachers.

OBJECTIVES OF THE STUDY

1 To access the attitude on in-service secondary teachers attitude towards use of ICT in teaching.

2 To compare the attitude of male and female in-service secondary school teacher

HYPOTHESIS OF THE STUDY

1 There is no significant difference between the teachers attitude towards ICT use in education.

2 There is no significant difference between the teachers attitude towards ICT use in education with respect to gender.
RESEARCH DESIGN

In the present study non experimental descriptive survey design was employed to find out the teachers' attitude to the use of ICT in teaching process. In addition to it researcher also investigated whether attitudes significantly differ with respect to gender.

PARTICIPANTS OF THE STUDY

The study group composed of 40 teachers working in different secondary schools in Karwar taluka of Karnataka state during the academic year 2021-2022. Considering impossibility of reaching all the teachers of the population only few samples were selected through a random sampling based on certain criterion such as delivery of questionnaires, transportation cost time limit etc.

DATA COLLECTION INSTRUMENT

The research data was collected through TICTAS (Teacher ICT Attitude Scale) developed by Aydin and Semerci (2017). TICTAS has two parts first part consist of descriptive question such as gender, age teaching experience etc. The part consist of five point Liberete type 16-items, scored as (1) I completely do not agree, (2) I do agree, (3) I am neutral, (4) I agree, and (5) I completely agree. Those 16 items factorized as two dimensions namely ICT willingness (11) and ICT Anxiety (5 items). In order to test the Psychometric quality of the scale the coronach Alpha coefficient was calculated as 0.74 for scale total which showed an acceptable level of reliability.

STATISTICAL TECHNIQUES USED

The statistical techniques used in the study were mean, SD and t-test.

DATA ANALYSIS

Data were analysed utilizing descriptive statistics such as mean, standard deviation and t-Test. To compare the means of Like rate type scale, score were standardized based on the formula (highest score - lowest score: number of options: 5 - 1.5 = 0.08). Based on the interval of 0.08, the mean scores between 1.00 to 1.08 were graded as “very low”, 1.81 to 2.60 as “low”, 2.61 to 3.40 as “modest”, 3.41 to 4.20 as “high”, and 4.21 to 5.00 as “very high”.

HYPOTESIS:

H1: There is significant difference between the teachers' attitude towards ICT use in education.

The following null hypothesis was set by the researcher.

H01: There is no significant difference between the teachers' attitude towards ICT use in education.
### TABLE 1 - Shows the results of descriptive analysis on teacher’s attitude toward ICT use in education, loaded in two factors, namely; ICT willingness and ICT anxiety.

| Item | I believe ICT use in Education.. | M     | SD    |
|------|---------------------------------|-------|-------|
| 1    | Increases the quality of teaching and learning process | 4.35  | 0.83359 |
| 4    | Is a fruitful means in attaining the educational targets | 4.32  | 0.615505 |
| 5    | Offers various teaching and learning opportunities | 4.6   | 0.496139 |
| 6    | Makes it easy for me to plan my teaching | 4.45  | 0.845808 |
| 7    | Increases students success in my class | 3.8   | 1.202561 |
| 9    | Makes teaching easier for teachers | 3.9   | 1.127739 |
| 11   | Increases my students involvement in my class | 4.075 | 0.729858 |
| 12   | Offers alternative learning opportunities such as e-learning and mobile learning | 4.15  | 0.852803 |
| 13   | Will be beneficial at each stage of teaching process | 4.075 | 0.828576 |
| 15   | Plays a critical role in contemporary education | 3.00  | 1.2195 |
| 16   | Makes students learning permanent | 3.875 | 1.042372 |
|      | ICT Willingness Overall | 4.054545 | 0.235034 |
| ITEM | I am afraid that ICT use in education... | Mean   | SD |
| 2    | Leads to an underestimation of teachers role | 2.075 | 0.997111 |
| 3    | Trivializes teachers | 2.45  | 1.218448 |
| 8    | Turns teaching into a monotonous and mechanical process | 2.425 | .957762 |
| 10   | Will take place of teachers in the future | 2.325 | 1.248332 |
| 14   | Harms teachers innovativeness | 2.525 | 1.219237 |
| ICT Anxiety Overall | 2.36 | 0.174642 |

**Interpretation:**

As mentioned in the above table teachers have a high level positive positive overall attitude (ICT willingness, M=4.05, SD=0.23) toward ICT use in education. However, the results also revealed that they still have some anxiety towards ICT use in teaching, yet at a low level (ICT anxiety, M=2.36, SD = 0.17 ).The results also showed that teachers have the opinion that use of ICT makes easy for teacher to plan their teaching.(M=4.45) and also brings qualitative development in teaching learning process(M=4.35).The study also revealed that teachers feels that ICT is an fruitful mean in attaining the educational target. Contrary to this teachers are also afraid that use of ICT in education may harm their innovativeness.(M=2.52).They also feels that in future it may take the place of teacher(M=2.32)
Hypothesis:

H2- There is a significant difference between the teachers' attitude towards ICT use in education with respect to gender.

The following null hypothesis was set by the researcher:

Ho- There is no significant difference between the teachers' attitude towards ICT use in education with respect to gender.

Table 2: Mean, SD, and “t” Value of teachers' attitude towards ICT use in education with respect to gender

| Gender | n  | M          | SD  | “t”    | sign |
|--------|----|------------|-----|--------|------|
| Male   | 20 | 44.78947   | 5.23| 0.239892| N.S  |
| Female | 20 | 44.36842   | 5.20| 0.22854|      |

Interpretation:

Above table shows the results of comparative analysis of teacher's attitude towards use of ICT in teaching learning processes with respect to gender. And the obtained mean score and t-Test results shows that there is no significant difference between male and female teachers towards use of ICT in teaching [t (36)=0.239; p>0.05].

Finding of the Study:

The present study is conducted to investigate the attitude of teacher toward use of ICT in education and also to investigate whether their attitude differ with respect to gender. The current study showed following findings:

- Teachers have high level of positive attitude toward use of ICT in education.
- Most of the teachers have the opinion that use of ICT in education increases the quality of teaching and learning process.
- Teacher feels that ICT makes teaching easy and fruitful.
- Use of ICT makes learning permanent.
- ICT plays critical role in contemporary education through e-learning, online learning and mobile learning.
- Teachers are also worried that ICT in education may harm their innovativeness and may makes learning monotonous.
- Gender does not play significant role in teacher's attitude towards ICT use in education.

Conclusion and Discussion:

ICT being invaded in every corner of our life we need to equip the younger generation with requisite skills needed for present scenario. For that we need to incorporate ICT tools and technology in the classroom right from primary level. In the present study researcher made an attempt to find out teacher attitude towards incorporation of ICTs in the teaching learning process. Teachers are the central part in the education system. They not only an exercise in reading and reciting facts in students, but also helps in gaining a deeper insight of events and situations. Today's generation is digital native. They use laptops, iPods, smart phones and computers. They have 3G and 4G networks to catch the internet. So today's teachers should learn the emerging pedagogy which is ICT enabled in their teaching process. Here researcher also made an attempt to find out the attitude of teachers toward ICT with respect to their gender. By analyzing data it was found that Teachers have high attitude toward use...
ICT in teaching learning process. It was also found that gender does not make any difference in attitude of teacher toward use of ICT in education.

To conclude, since the results of the present study consistent with previous research finding. By this we can shed light in to educational developers to develop ICT based teaching strategies so that students can make best use of it, and learning will be more effective. ICT practitioners, policy makers and scholars need to provide training programme for teachers so that the anxiety which they have can be eliminated so that they can give best to the society by which nation can be strengthened.

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