# A STUDY OF ATTITUDE OF COLLEGE TEACHERS TOWARDS INFORMATION TECHNOLOGY

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## ABSTRACT

The current study investigates teachers' attitudes toward ICT both descriptively and comparatively. This study attempts to compare teachers' attitudes based on their age and experience. The study used a descriptive cum causal comparative design, with 200 teachers selected at random from the humanities and science groups. The data was collected using a standardized attitude scale. According to the study's findings, approximately 76% of teachers expressed a strong positive attitude, 17% expressed an average attitude, and the remainder had a low positive attitude toward the use of ICT. The study's findings also revealed a significant difference in teachers' attitudes based on age, but not on experience.

**Keywords:** Attitude, ICTs, Social justice, Technical support etc.

## INTRODUCTION

The goal of education for learners is to assist them in acquiring and developing knowledge and skills that will help them improve their life prospects, as well as to prepare them to contribute to national growth and development for the welfare and prosperity of society and nation, with ICTs playing an important role. As a result, incorporating ICT into the teaching-learning process can foster both individual growth and long-term community and societal development.

Higher education institutions and training primarily aim to prepare teachers with meaningful, vivid knowledge and skills, in which ICTs play an important role. Teaching has become one of the most difficult professions in the twenty-first century due to the rapid expansion of knowledge, much of which is available to both students and teachers via the internet. In today's world, the definition of

learning has shifted from knowledge acquisition to knowledge construction, with teachers acting as facilitators and students given complete autonomy to encourage independent learning.

The advancement of innovative instruments has created new opportunities in the teaching profession, increasing the demand on teachers to learn how to use appropriate technologies to make their lessons more interesting and effective. Simply having ICT tools in schools or colleges do not guarantee that they will be used effectively; therefore, orientation and refresher training sessions are required. It can be argued that ICT is one of the most powerful tools for strengthening the teaching-learning process and improving educational quality by transforming learning and teaching into an active process that is linked to real life. So, in the current study

Attitude is one of the determining factors in predicting people's behavior. That is to say by understanding an individual's attitude towards something, one can predict with high precision the individual's overall pattern of behavior to the object (Ajzen & Fishbein, 1977). Attitude has been defined as 'a learned predisposition to respond positively or negatively to a specific object, situation, institution, or person." Therefore, attitude affects people in everything they do and in fact reflects what they are, and hence a determining factor of people's behavior (Yushau, 2006). Computer attitude has been defined as a person's general evaluation or feeling of favour or antipathy toward computer technologies and specific computer related activities. (Smith et al, 2000).

**NEED OF THE STUDY**

The use of information and communication technology (ICT) is critical in the teaching-learning process, and teachers generally view it positively. However, there is a gap between students' goals and teachers' daily school routines. ICTs help to close this gap by improving students' learning experiences and promoting social justice. Teachers' attitudes toward technology and technological proficiency are the most important factors in developing and maximizing the benefits of ICT in the teaching-learning process. Teachers must be knowledgeable and skilled to teach in today's classrooms, especially when using computers and other digital tools. Pathetically, research (Yildirim, 2007) reveals that teachers are reluctant to use technology, don't feel ready, and are afraid to include ICT into their classroom instruction.9 Their resistance to embracing technology as a component of their new teaching approaches is mostly the result of their negative attitudes towards technology (Summar, 1990).

**OBJECTIVES OF THE PRESENT STUDY**

1. To study the level of attitude of teachers towards information technology.
2. To compare the attitude of Humanities and Science teachers towards information technology with respect to age.
3. To compare the attitude of Humanities and Science teachers towards information technology with respect to experience.

**REVIEW OF RELATED LITERATURE**

The attitude of teachers toward ICT was found positive and although it didn't differ in terms of their gender, but it differs regarding age, computer ownership at home and computer experience. (*Cavas et.al, 2009; Kaur, 2012; Ndibelema, 2014*). Lydiah et al. (2016) explored thast ICT has created a new or powerful learning environment where knowledge can be transmitted to students for improving knowledge, skills in their self-directed way, thus the level of students' attitude toward ICT in teaching and learning was positive despite the challenges in its integration in public secondary schools. Many teachers and student teachers are not getting appropriate environment about the application of ICT or computer in their locality, so the use of computer during teaching-learning some are showing positive attitude and some are showing negative as far as their locality is concerned, it means researcher found significant difference with their attitude respect to his/her locality of home and the majority of teachers have significantly positive attitudes toward ICT. (Ganesan & Krishnakumar, 2016). The locality and gender of teacher-trainees do not bring differences in the attitude towards the use of information and communication technology in teaching (Dixit and Kaur, 2015). Research also shows that the use of ICT has brought many problems and issues, challenges and opportunities, which ultimately influenced the world like no other invention in the recent past. The field of education has also been significantly influenced by ICTs. In the context of teacher education, teacher-educators' attitudes toward the use of ICT, as well as their knowledge and levels of ICT tool and device use in teaching training colleges. Teacher-educators have a positive attitude toward ICT and its tools and devices used in the teacher education process, but they also admit to a lack of training and technical support. (Beri and Sharma, 2019).

**HYPOTHESES**

1. There is no significant difference in the mean scores of attitude of Humanities teachers towards information technology with respect to age (below 35 & above 35 years).

2. There is no significant difference in the mean scores of attitude of Science teachers towards information technology respect to age (below 35 & above 35 years).

3. There is no significant difference in the mean scores of attitude of Humanities teachers towards information technology with respect to experience (below 10 & above 10 years)

4. There is no significant difference in the mean scores of attitude of Science teachers towards information technology with respect to experience (below 10 & above 10 years)

**METHOD**

As the purpose of the study was to study the attitude of teachers towards the use of ICTs, the descriptive survey method was used, where the attitude scale was distributed to the selected teachers and their responses were gathered. On the other hand, causal-comparative method was adopted to compare the attitudes of teachers about the use of ICTs with respect to their age (Above & below 35 years) and Experience (below 10 & above 10 years). So, descriptive-survey cum causal-comparative method was used to investigate the present study.

**SAMPLE**

A sample of 100 teachers from different colleges was randomly selected from Himachal Pradesh. It comprised of 50 teachers from college belong to humanities and 50 from college belong to Science.

**TOOL USED**

Attitude Scale towards Information Technology for Teachers developed by Dr. (Mrs.) Nasrin and Dr. (Mrs) Fatimha Islahi (2012) to measure the attitude of teachers towards Information Technology. It consisted of 30 items. The maximum possible score of this test is 150 and minimum is 30.

**STATISTICAL TECHNIQUES USED**

1. Descriptive statistical techniques namely - Mean, S.D. (Standard deviation) and S.ED (Standard error of difference) were computed.

2. 't'-ratio was calculated

3. Bar graphs were plotted to have a pictorial view of the data.

**ANALYSIS AND RESULTS**

**Bar Diagram 1 showing different levels of attitude of Humanities teachers towards information technology.**
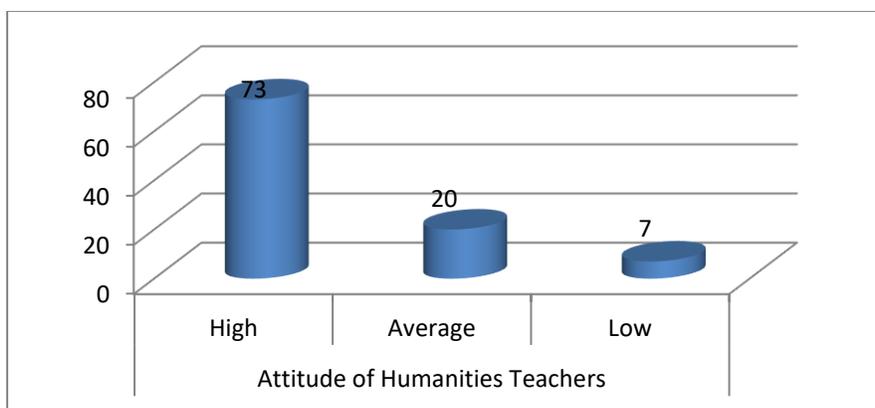


**Bar Diagram 1 showing different levels of attitude of Science teachers towards information technology.**
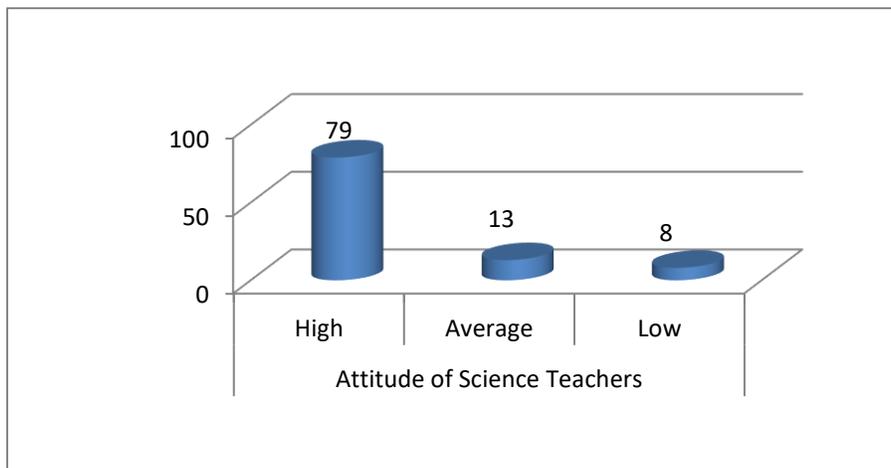
**Hypothesis-I: There is no significant difference in the mean scores of attitude of Humanities teachers towards information technology with respect to age (below 35 & above 35 years).**

| Group (Humanities teachers) | N | Mean | S.D. | S.E$_D$ | t-Ratio | Level of Significance |
|---|---|---|---|---|---|---|
| below 35 years | 25 | 104.44 | 17.51 | 4.21 | 4.32 | significant at 0.05 as well as 0.01 level |
| above 35 years | 25 | 122.64 | 11.76 | | | |

The above table shows that mean scores of attitude of Humanities below 35 years and above 35 years teachers towards information technology are 104.44 and 122.64, while their S.D's are 17.51and 11.76 respectively. When we calculated SE$_D$ comes out to be 4.21and the calculated t-ratio is 4.32, which is significant at both the levels of confidence i.e. 0.05 as well as 0.01 because calculated t-ratio is higher than the tabulated value at both the levels of confidence. This shows that there exists significant difference in the mean scores of attitude of Humanities below 35 years and above 35 years teachers towards information technology. Hence Hypothesis - I 'Rejected'.

**Hypothesis-II: There is no significant difference in the mean scores of attitude of Science teachers towards information technology respect to age (below 35 & above 35 years).**

| Group (Science teachers) | N | Mean | S.D. | S.E$_D$ | t-Ratio | Level of Significance |
|---|---|---|---|---|---|---|
| below 35 years | 25 | 121.24 | 16.83 | 5.57 | 2.03 | significant at 0.05 but non significant at 0.01 level |
| above 35 years | 25 | 109.88 | 22.20 | | | |

The above table shows that mean scores of attitude of Science teachers (below 35 & above 35 years) towards information technology are 121.24 and 109.88, while their S.D. are 16.83 and 22.20 respectively. When we calculated SED it comes out to be 5.57 and the calculated t-ratio is 2.03 which is significant at 0.05 but not significant at 0.01 level because calculated t-ratio is higher than the tabulated value at 0.05 level of confidence but lesser than 0.01 level of confidence. This shows that there exists significant difference in the mean scores of attitude of Science teachers (below 35 & above 35 years) towards information technology. Hence Hypothesis - II has been rejected.

**Hypothesis – III: There is no significant difference in the mean scores of attitude of Humanities teachers towards information technology with respect to experience (below 10 & above 10 years)**

| Group (Humanities teachers) | N | Mean | S.D. | S.E$_D$ | t-Ratio | Level of Significance |
|---|---|---|---|---|---|---|
| below 10 years | 25 | 104.44 | 17.51 | 5.65 | 0.96 | Not significant at 0.05 and 0.01 level |
| above 10 years | 25 | 109.88 | 22.20 | | | |

The above table shows that mean scores of attitude of Humanities teachers (below 10 & above 10 years) towards information technology are 104.44 and 109.88, while their S.D. are 17.51 and 22.20 respectively. When we calculated SE it comes out to be 5.65 and the calculated t-ratio is 0.96 which is not significant at both the levels of confidence i.e. 0.05 as well as 0.01 because calculated t-ratio is lesser than the tabulated value at both the levels of confidence. This shows that there exists no significant difference in the mean scores of attitude of Humanities teachers (below 10 & above 10 years) towards information technology. Hence Hypothesis - III has been accepted.

**Hypothesis-IV: There is no significant difference in the mean scores of attitude of Science teachers towards information technology with respect to experience (below 10 & above 10 years)**

| Group (Science teachers) | N | Mean | S.D. | S.E$_D$ | t-Ratio | Level of Significance |
|---|---|---|---|---|---|---|
| below 10 years | 25 | 121.24 | 16.83 | 4.10 | 0.34 | Not significant at 0.05 and 0.01 level |
| above 10 years | 25 | 122.64 | 11.76 | | | |

The above table shows that mean scores of attitude of Science teachers (below 10 & above 10 years) towards information technology are 121.24 and 122.64, while their S.D. are 16.83 and 11.76 respectively. When we calculated SED it comes out to be 4.10 and the calculated t-ratio is 0.34 which is not significant at both the levels of confidence i.e. 0.05 as well as 0.01 because calculated t-ratio is lesser than the tabulated value at both the levels of confidence. This shows that there exists no significant difference in the mean scores of attitude of Science teachers (below 10 & above 10 years) towards information technology. Hence Hypothesis – IV has been accepted.

**CONCLUSIONS**

1. There is significant difference in the mean scores of attitude of Humanities teachers (below 35 & above 35 years) towards information technology. Below 35 years humanities teachers have significantly higher positive attitude towards Information technology

2. Humanities teachers who are below 35 years age have significantly higher positive attitude towards Information technology

3. There is no significant difference in the mean scores of attitude of Humanities teachers towards information technology with respect to experience.

4. There is no significant difference in the mean scores of attitude of Science teachers towards information technology with respect to experience.


**EDUCATIONAL IMPLICATIONS**

ICT in the classroom encourages critical and scientific thinking in both students and teachers. It encourages learners to participate in educational activities whenever and wherever they want. It encourages teachers to collaborate and share ideas for personal and professional development. ICT has also been used to improve accessibility and the quality of teacher preparation. ICT technologies, such as multi-modal courseware, improve instruction and learning. They are combined with pedagogical innovations to help students develop higher-order thinking skills. ICT resources, such as radio, television, the Internet, computers, laptops, tablets, and a variety of other hardware and software programs, can be used in teaching and learning. These resources could be helpful for content, curriculum, instruction, and assessment.. In India, there are three main stages of education: primary or elementary, secondary and senior secondary, and higher level. The use of ICT tools and techniques makes it simple to improve the quality at all three levels.


**SUGGESTIONS FOR FURTHER RESEARCH**

- The similar study can be extended to State or National level to make results more valid and reliable.
- The present study is based on the 100 Teachers. The study can be conducted on the teachers of other states also with larger sample.
- Some other tools may also be employed to find out the comparison of attitude of teachers towards Information Technology.

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