

Comparative Analysis Between Government School Teacher And Private School Teacher On Integration Of Ict In Classroom With Special Focus To Malda District, West Bengal, India

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ABSTRACT:

In order to help achieve the objectives of the heavily stressed idea of inclusion, it is necessary and crucial that teachers receive training in the use of ICT in teaching and learning. In order to ensure that a classroom is truly inclusive, it is crucial for teachers to possess the knowledge and abilities needed to remove frequent learning barriers that appear as a result of individual differences of a cultural, social, physical, psychological, and economic nature. In this article, comparative analysis between government school teacher and private school teacher on integration of ICT in classroom with special focus to Malda District, West Bengal, India has been evaluated.

Keywords: ICT, School, Teacher, Classroom, Malda.

INTRODUCTION:

Information and communication technologies, or ICTs, are the technical means of communication as well as the production, distribution, archiving, and management of information. [1] ICT is defined as all hardware and software resources used specifically for exchanging, storing, and producing information using available technology. [2] It differs from e-learning, a procedure that uses modern ICT resources to improve the teaching and learning process. [3] Therefore, we can conclude that ICT is a very beneficial

educational instrument and has the ability to greatly assist students at any level. [4] In the past ten years, a number of studies have been undertaken expressly to demonstrate the value and applications of ICT in research and education. It also clarifies how to employ them to facilitate learning that is more effective. [5]

The purpose of the research as follows with special reference to Malda district, West Bengal:

1. To comparative study of the ICT-Familiarity on Government and Private School Teachers on integration of ICT in classroom.
2. To comparative study of ICT-Familiarity on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.
3. To comparative study of the Teaching Experience of Government and Private School Teachers on integration of ICT in classroom.
4. To comparative study of the Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.
5. To comparative study of the ICT-Familiarity and Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

RESEARCH METHODOLOGY:

Hypothesis of the Study:

¹**H₀**: There are no significant comparative study of the ICT-Familiarity on Government and Private School Teachers on integration of ICT in classroom.

¹**H_A**: There are significant comparative study of the ICT-Familiarity on Government and Private School Teachers on integration of ICT in classroom.

²H₀: There are no comparative study of ICT-Familiarity on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

²H_A: There are significant comparative study of ICT-Familiarity on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

³H₀: There are no significant comparative study of the ICT-Familiarity on Government and Private School Teachers on integration of ICT in classroom.

³H_A: There are significant comparative study of the ICT-Familiarity on Government and Private School Teachers on integration of ICT in classroom.

⁴H₀: There are no significant comparative study of the Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

⁴H_A: There are significant comparative study of the Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

⁵H₀: There are no significant comparative study of the ICT-Familiarity and Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

⁵H_A: There are significant comparative study of the ICT-Familiarity and Teaching Experience on Teacher Effectiveness of Government and Private School Teachers on integration of ICT in classroom.

Method used in the Study:

The method adopted should be valid, reliable and appropriate to the nature of the problem under investigation and the kind of data that the problem demands.

In the present study Causal-Comparative Method of research was used by the researcher. The purpose of the study was to study the effect of ICT-Familiarity on Teacher

Effectiveness of school teachers. In such type of studies, neither any previous records nor any type of experimentation can be helpful in gathering the required information. Such type of information can be collected only by administering some tests to the teachers and the data are gathered about what exists from relatively large sample of a particular population. Hence, Causal-Comparative Method was to be the most suitable method for this purpose in order to reach meaningful conclusions.

Causal-Comparative Research is such a type of research in which one or more independent variables have already happened and researchers have to start their work with one or more dependent variables. Only after this, the researcher studies the relation between independent variable and dependent variable. Casual- Comparative Research is also known as Ex-Post Facto Research.

Ex-Post Facto means that 'from after the fact' serves to indicate that the research in question is conducted after variation in the independent variables have already been determined in the natural course or events. In other words, it is research in which the consequences are immediately observable and the problem is to determine antecedents that give rise to these consequences. In the present study, the basic purpose of the research is to discover causal effect among variables and variation in the independent variable have already been determined in the natural course of events. So, it can be said that for the present study, Causal-Comparative or Ex-Post Facto method was suitable.

Variables of the Study:

A variable, which is being studied and that represents any feature or aspect of an event, function or process also affects some other event, function or process because of its presence and nature. The present study was conducted on school teachers with the following variables.

Dependent Variable – Teacher Effectiveness

Independent Variables:

(i) ICT-Familiarity

(ii) Teaching Experience

Demographic Variable – School teachers was also taken as demographic variable

Population of the Study:

This is an important aspect to describe the population of the study in a research work. A population is defined as any group of individuals that have one or more characteristics in common and are of interest to the researcher. The population may be all the individuals of a particular type, or a more restricted part of that group. In the present study, all government and private school teachers who teach in the schools of Malda district, West Bengal were the population of the study.

Sample of the Study:

Sample was selected from population through stratified random sampling technique. 350 school teachers who teach in the schools of Malda district, West Bengal were the sample of the study. Sample size was decided by the significance level.

The sampling frame of the study was adopted as follows:

School Teachers: 350 (Government School Teachers: 200; Private School Teachers: 150)

Government School Teachers: 200 (More experienced: 100; Less experienced: 100)

Out of More experienced: 100

ICT-Familiar Government School Teachers More Experienced: 30

ICT-Unfamiliar Government School Teachers More Experienced: 70

Out of Less experienced: 100

ICT-Familiar Government School Teachers Less Experienced: 39

ICT-Unfamiliar Government School Teachers Less Experienced: 61

Private School Teachers: 150 (More experienced: 75; Less experienced: 75)

Out of More experienced: 75

ICT-Familiar Private School Teachers More Experienced: 42

ICT-Unfamiliar Private School Teachers More Experienced: 33

Out of Less experienced: 75

ICT-Familiar Private School Teachers Less Experienced: 44

ICT-Unfamiliar Private School Teachers Less Experienced: 31

Tools Used in the Study:

For the purpose of the study, it was decided to make use of certain tools. These tools were developed by the researcher.

- Development of ICT-Familiarity Questionnaire (IFQ)
- Development of Teacher Effectiveness Scale (TES)

DATA ANALYSIS AND INTERPRETATION:

Analysis and Interpretation of collected data are the two major steps in the process of research work. Data becomes meaningful in the process of being analyzed and interpreted. The data, collected through the administration of tools, was subjected to statistical treatment.

To know the effect of ICT-Familiarity on Teacher Effectiveness of government and private school teachers, t-ratio was computed between scores on Teacher Effectiveness of ICT-Familiar and ICT-Unfamiliar teachers. t-test is an inferential parametric analysis. To use parametric analysis, some assumptions should be fulfilled.

1. Data should be on Interval Scale
2. Data should be Collected Randomly

3. Data should be Normal in Distribution
4. Variances of Both Groups should be Homogeneous

In the present study, data is on interval scale and it was collected through stratified random sampling technique. For testing normality, Shapiro-Wilk Test was used and for testing homogeneity of variances, Chi-Square Test was used.

Statistical Techniques:

According to the objectives, following statistical techniques were used in this study:

- Descriptive statistics such as Mean, Median, Percentage, S.D., Variance, Skewness and Kurtosis were used for data analysis.
- For test of normality, Shapiro-Wilk Test was used.
- For homogeneity of variance, Chi-Square Test was used.
- For comparison of means of two groups 't'- test was used.
- Two-Way Anova was used to study the effect of two independent variables on one dependent variable.

Level of Significance:

In the present study, researcher decided 0.05 level of significance for inference. At the 0.05 level of significance, Type-I and Type-II errors are possible in the decision making, but in social sciences (Education) researches it can be considered.

FINDINGS AND DISCUSSION:

In the present study, the effect of ICT-familiarity on teacher effectiveness of school teachers of private and government at Malda District, West Bengal was studied. ICT-Familiar school teachers were found more effective than ICT-Unfamiliar school teachers. ICT-familiarity affects teacher effectiveness of school teachers.

Teacher effectiveness and ICT-familiarity of college teachers, in support or against of the findings of the present study, has not been thoroughly explored in the literature.

Some following studies support the findings found that ICT is effective in raising teachers' capabilities:

- It also found that more effective teachers exhibited better attitudes towards ICT than less effective teachers.
- It also found that the women surveyed, felt teacher effectiveness is most strongly associated with the availability of technology tools.
- It also found that 85% respondents indicated that ICT, appropriately used, can enhance teaching and learning. These studies are not directly related to the present study but indirectly support the findings of the study.
- It has found that the infusion of technology into educational environments, especially in the social studies aligned with constructivist pedagogy, bears potential to inspire new ways of teaching and learning.

ICT also has a bad impact on education system. The teacher who always shows the examples of work from the internet and copy information, will not exhibit a good example before the students. This may make the students follow the action of the teacher and push them only to copy and paste. At the same time, the information and knowledge which comes from the internet is not necessarily correct.

- It also said that ICT will take a lot of time in the classroom even upto a year with the support of experienced teams. Teachers who are exclusively dependent on information, searched from the web, are more likely to commit mistakes. Information, received from the web or internet, mostly comes from the personal opinions of the user.
- It is suggested that the manner in which the subject is taught probably has a larger effect than the more

use of ICT. If the teachers do not adopt their methods to make best use of ICT, the students do not gain from the use.

➤ It also stated that students and sometimes teachers can act, hooked on the technology aspect, rather than the subject content.

Teacher effectiveness is a matter of degree to which a teacher achieves the desired effect upon students' achievements. The desired effect upon students' learning can be judged through achievement. So, many studies concluded that there is a significant effect of the use of ICT on students' achievement.

➤ Exhaustive study examined more than 500 individual research studies of computer-based instruction and summarized the findings. He found that students, who used computer-based instruction scored higher (at the 64th percentile) on tests of achievement compared to students in the control condition without computers (at the 50th percentile). Also, concluded that students learn more in less time when they receive computer-based instruction.

➤ It also found that ICT has positive impact on student performances in primary schools. Teachers are more convinced that educational achievements of their students are due to good ICT use. Furthermore, a high percentage of teachers in Europe (86%) believe that students are more motivated when computers and the internet are used in the class. The above study also showed that ICT has significant impact on teachers and teaching process.

➤ Many students found learning in a technology-enhanced-setting more stimulating and much better than in traditional classroom environment.

➤ Technology serves to enhance the effectiveness of teaching but does not replace the role of teachers.

➤ Computer-assisted teaching is the best method to teach the concepts of Physics at senior secondary level. There is no much profitable learning by the students just by using computer technology to grasp the concepts of Physics

without the aid of teacher or by the traditional method of teaching Physics.

➤ It can be concluded that ICT has significant effect on student achievement, but the role of a teacher is also very important. Without the aid of teacher, there is no profitable learning.

ICT provides variety in the presentation of the course such as; power-point presentation, 3D-pictures, animation and multimedia, which helps learners in concentration and better understanding and long retention of information, which is not possible otherwise.

➤ Teachers can present course content in a variety of ways with the help of ICT. Technology encourages cooperative learning and stimulates student -teacher interaction and students can give higher self-esteem and achievement when trained in collaborative learning.

It can be concluded that ICT-Familiar teachers can provide rich variety in the presentation of the course, which helps students in concentrating and developing a better understanding and long-retention of information. Students achieve greater amount of knowledge with the help of ICT.

In the present study, ICT-Familiar school teachers are found more effective than ICT-Unfamiliar school teachers. ICT-Familiar school teachers can use ICT frequently in their teaching. One of the main reasons for effectiveness may be the use of these technologies in teaching. It is felt that with the use of these technologies there is no need to give notes during teaching. Teachers have sufficient time to explain and clarify the content, and so teacher effectiveness of school teachers is increased. ICT provides variety in the presentation of the content, which helps learners in the concentration and better understanding and long retention of information, which is not possible otherwise. Technology-based teaching acts as a powerful enabling device to promote active learning and opens up new learning approaches.

Teachers use ICT in multifarious ways. ICT-Familiar college teachers use suitable websites as per the topics to be

taught, and collect information and use it during their teaching. ICT-Familiar school teachers use websites as a teaching-aid. These teachers contact the suitable web-sites and collect adequate and recent information related to a topic and use it in the classroom teaching. Teachers also interact with the experts suggested in the websites through e-mail and chat. By using websites, recent knowledge about the subject is given by the teachers to the students. One-way information flow is replaced to two-way information flow by the use of ICT in teaching. Students take keen interest in their studies and teacher effectiveness is enhanced by the use of ICT in teaching.

Teachers are also negatively affected by the undue or excessive use of ICT. The previous supporting references are hereunder:

- It was found that the teachers, who depend more on the ICT, do not perform well as a teacher, for example they may not check through the details of the work that was searched from the web.
- Sometimes teachers can act, hooked on the technology aspect, rather than the subject content. Teachers who always produce the example of the work from the internet and copy the information will not show a good example for the students. That may cause the students follow the action of the teacher and start to copy and paste. At the same time, the information and knowledge which comes from the internet is not necessarily correct. When ICT is used in such unreasonable ways, teacher effectiveness is negatively affected.

Teachers use ICTs in teaching in two general ways to support existing traditional pedagogical practices (teacher-centric lecture-based, rote learning) as well as to enable more learner-centric, constructivist learning models.

Use of ICT has a positive impact on teaching, but nevertheless the manner in which the subject is taught, has a larger effect than the more use of ICT. [6] When a teacher does not adopt his methods in order to make the best use of ICT, the purpose of using ICT becomes defeated and

teacher effectiveness is also negatively affected by the excessive use of ICT.

The present study was done on the private and government school teachers. In this context, a better balance should be maintained between teaching and practical. This should be maintained with the proper use of ICT. For effectiveness, teachers should be updated as regards their knowledge, which can be achieved successfully with the help of ICT.

So, it can be concluded that ICT-Familiar school teachers are found more effective than ICT-Unfamiliar school teachers. School teachers should become ICT-Familiar with regard to availability of a particular technology and its usability. Elementary concepts on ICT, using computers and managing files, word-processing, spreadsheets, databases, creative presentations, finding information and communicating, will be incorporated into the training for ICT-familiarity. Regular in-service training for school teachers on effective use of ICT-tools should be conducted mandatorily as refresher course.

CONCLUSION:

In the present study, the effect of teaching experience on teacher effectiveness of government and private school teachers in Malda district, West Bengal was studied. It was found that there is no significant effect of teaching experience on teacher effectiveness of school teachers. More Experienced and Less Experienced school teachers are equally effective. Teacher effectiveness is found independent of their teaching experience.

This finding is supported by some other studies such as:

- It also found that there is no significant relationship between the years of teaching experience and teacher effectiveness.
- Teachers were found most effective in the 11-15 years experienced group after that it began to decline and also that teacher effectiveness was found to be related to the age of teachers.

- There is no significant relationship between teacher effectiveness and years of service of teachers.
- The effect of experience of teaching on the teacher effectiveness is found increasing upto the experience of 19 years but it found decreasing after the level of experienced.
- There is a little evidence that improvement continues after the first year.
- Teachers gradually reach a plateau after 3-5 years of job.
- Teachers with some experiences are more effective than brand new teachers.
- The bulk of the experience effects occur during the first year.
- The More Experienced high school teachers may be less effective than their Less Experienced colleagues.
- Individual teachers tend to improve with experience, but not all teachers begin their career with the same skills or rise to the same level.
- Less Experienced teachers are more effective than teachers with more experience.
- Teacher effectiveness of the teachers was independent of teaching experience.

It is presumed that more experienced teachers teach more effectively as experience gives them confidence, content mastery and deep understanding of students. But, in the present study, teacher effectiveness was found to be independent of teaching experience of teachers. There might be some reasons behind this finding which can be as follows:

- Less Experienced teachers have the feeling of insecurity for their job, so they do hard work and try to give their best in front of their students, resulting in their effective teaching.

- More Experienced teachers have other administrative responsibilities in the school along with their teaching. So, they become extremely busy and cannot devote themselves whole-heartedly to teaching.
- In schools, well-qualified teachers are recruited; thus, their qualification and pre-service training help them in content mastery and effective presentation skills rather than experience.

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