

STATUS OF COMPUTER EDUCATION IN SECONDARY SCHOOL ON BALASORE DISTRICT: AN EMPIRICAL STUDY

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ABSTRACT

The study was conducted to find out the status of computer education in secondary school in Balasore district. The sample consists of 100 teachers and 100 students from 20 higher secondary schools from 2 block of Balasore district by adapting descriptive method. The data was collected by providing questionnaire to both teachers and students. It was found that Incorporation of computer education in schools inspire students to undertake careers in technology and enhance their understanding of how computer technology impacts people's daily lives. The computer knowledge acquired in schools may increase their interest in computer education. Research has indicated that the use of Information and Communication Technology can support new instructional approaches and make hard-to-implement instructional methods such as simulation or cooperative learning more feasible. It was found that teachers show positive response to the use of computer in secondary school. They also stress on making provision for more computers in the schools to facilitate more hands on practice among the students and also to attract them towards computer as a subject. They also urged for clear cut instruction on the syllabus regarding the content to be followed, and also allotment of more computer classes in the school routing to give students sufficient time for completing the course. This reflects the teacher's sense of involvement with the objectives of computer education.

Key words: Status, Computer education, Secondary school, Attitude.

1. INTRODUCTION

Computer education is a part of school curriculum. computer can make the process of learning interesting as well as knowledge-rich. It can attract the students to learn progressively resulting in more individuals having multiple options of going towards higher education, computers create opportunities for them in today's job market by enhancing the quality of education being given to them. Formal system of education has been evolving steadily all around the world over the past several years. The two building blocks of an education system are teaching and learning. Teaching, from a more traditional perspective, infers that person in demonstrating or lecturing a concept. This of course, has some constraint and conditions for both the teacher and the taught. When condition is infused with ICT, learning is augmented, which deeply impact a students learning experience. ICT in education improves engagement and knowledge retention. When ICT is integrated into lesson, students become more engaged in their work. This is because technology provides different opportunities to make it more fun and enjoyable in terms of teaching the same thing in different ways.

2. REVIEW OF RELATED LITERATURE

Scrim Shaw Peter (2004) reviewed literature on Enabling teacher to make successful use of ICT with a view to identify the factors which are more effective in enabling and encouraging the uptake of ICT by teachers.

Wighting MJ(2006) has used a mixed method to determine how far the use of computers in the classroom affects the sense of learning among the high school students.

Ngeze(2017) Conducted A Study on:-"ICT Integration in Teaching and Learning in higher Secondary Schools in Tanzania: Readiness and Way Forward" The paper analyses Information Communication Technology (ICT) as a pedagogical tool in higher secondary schools teaching and learning with a focus on ICT policy for education in Tanzania.

Sahu And Pradhan (2014) Conducted A Study on:- “The Use of ICT in the Teaching-Learning Process in higher Secondary Schools of Sangrur District Punjab” Modern age has witnessed many changes such as rapid scientific and technological advancement, information revolution caused by the technology, knowledge explosion, population explosion, globalization, rapid urbanization, emergence of multiculturalism etc.

Sheila (2012) conduct a study on:- “Integrating Information Communication and Technology in Education at higher Secondary level ,A Case of Nairobi country, Kenya.”The purpose of the study was to explore the various challenges and opportunities influencing integration of ICT in teaching and learning in higher secondary schools in Nairobi country.

Myers (2011) conducted a study on:-“The Effects of the use of Technology in Instruction on student Achievement.”The purpose of the study was to examine the effects of the use of technology on students achieving, particularly the Florida comprehensive assessment test (FCAT).

Hudson (2010)conducted a study on:- “ICT use to improve Learning in Secondary Schools” .The purpose of the study to focus on the use of ICT to improve learning by encouraging teachers to adopt the use of technology in public secondary school.

Sangra And Sanmamed (2010) Conducted a Study on: - “The role of information and communication technologies in improving teaching and learning processes in secondary schools” The purpose of this study is to analyse what is happening at schools regarding the integration and use of information and communication technologies (ICT) and to examine teachers’ perceptions about what teaching and learning processes can be improved through the use of ICT.

Fanai and Chhangte(2016) Conducted a Study on:- “ Attitude of the Secondary School Teachers towards ICT With Respect to Teaching Experience” The present study attempts to find out the attitude of secondary school teachers of Aizawl district, Mizoram towards ICT.

Mansuri(2017) Conducted a Study on:- “Attitude Towards Information Technology: A Study Of Secondary School Teachers” The objective of the study was to study the attitude of SSC and ICSE school teachers towards Information technology and to compare the attitude of SSC and ICSE school teachers towards Information technology.

Machumu (2018) conducted a Study on: - “ICT as a pedagogical tool in higher secondary schools teaching and learning” The paper analyses Information Communication Technology (ICT) as a pedagogical tool in higher secondary schools teaching and learning with a focus on ICT policy for education in Tanzania.

3. STATEMENT OF THE PROBLEM

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4. SIGNIFICANCE OF THE PROBLEM

This study could be immense benefits to educational administrator, curriculum planners and those involved in implementation of computer studies in National Policy on education. The knowledge from this study could help to understand and identify problem facing implementation of computer education in secondary school.

5. OPERATIONAL DEFINATION OF THE TERM USED

5.1 Attitude-attitude is a psychological construct, a mental and emotional entity that inheres in or characterizes a person. They are complex and an acquired state through experiences.

5.2 Secondary school-a secondary school is both an organization that provides secondary education and the building where this takes place.

5.3 Computer-is an electronic machine or hardware that works under the control of changeable stored program, to accept data, process it automatically.

5.4 Status-to find out the uses of computer by teachers and students, existing of hardware and software in secondary school.

6. OBJECTIVE OF THE STUDY

The study is designed to investigate the status of computer education in secondary school in Balasore district.

1. To find out the status of computer education.

2. To study the attitude of teachers and students towards computer education.

3. To study the computer knowledge of students studying computer in secondary school.

7. DELIMITATION OF THE STUDY

1. The study is delimited to 20 secondary school and 100 teachers and 100 students as sample.
2. The study is delimited to one district of odisha i.e. Balasore.

8. METHODOLOGY

In the present study descriptive survey method has been used. Descriptive survey is the means -through which opinion, attitude, suggestions for improvement of educational practices and instruction can be obtained.

9. POPULATION

In the present study the population constituted 20 higher secondary school from 2 block of Balasore district.

10. SAMPLING

In order to collect the requisite data for any research problem, the researcher has to take sample from the population concerned. For the present study the researcher has been selected 20 no. of higher secondary school from 2 block of Balasore district. For the present study a total no. of 100 teachers and 100 students selected as sample by simple random sampling technique.

11. TOOLS AND TECHNIQUES TO BE USED FOR THE STUDY

The following tools will be used by the researchers to collect data from the sample school about their existing computer education.

- (a) For objective -1. Self-made checklist will be prepared by the researchers to find out the status of computer education in secondary school.
- (b) For objective -2. Attitude scale towards information technology for teachers prepare by Nasrin and Fatima Islahi with components of i. impact of IT, ii. usefulness for students, iii. Productivity for teaching, iv. Teacher interest and acceptance will be used.
- (c) For objective -3. Computer knowledge test prepare by Raghu Ananthula and Mahendra Reddy sarsani will be used.

12. DATA COLLECTION

Data were collected from the sample school, teachers and students by using the above mentioned tools. All the tools distributed among the teachers and students, and corresponding data were collected.

13. ANALYSIS AND INTERPRETATION OF DATA

Data analysis and interpretation is the process of assigning meaning to collected information and determining the conclusion, significance and implications of findings. According to C.R Kothari(1989), "The term analysis refers to the computation of measures along with searching for patterns of relationship existing among data groups."

The aim of the present study is to find out, "The status of computer education in secondary school in Balasore district". The collected data are arranged properly, analyzed, systematically and interpreted precisely.

14. FINDING

Several positive findings emerged from the study. It is found that majority of the teachers have recognized the important role that computer play in today's society. The teacher engaged in computer teaching feel that introduction of computers in the class room is extremely important. According to them, computer education in school would provide a foundation to the students to cope with the academic and professional need in future.

Secondly, the emphasis by the teacher on improved in-service training reflect their eagerness for their professional development. This is healthy trend as it shows the teachers desire to keep themselves at par with the current development in computer education.

The present study clearly indicates that the higher secondary teachers have neutral attitude towards using new technology in teaching. This is because the teachers may have hesitation or afraid or lack of time to use new technology in their teaching. A number of early studies investigated why teachers do not use computers in their teaching (Rosen & Weil, 1995; Winnans & Brown, 1992; Dupagne & Krendl, 1992; Hadley & Sheingold, 1993). Not surprisingly they found a list of inhibitors: lack of teaching experience with ICT; lack of on-site support for teachers using technology; lack of help supervising children when using

computers; lack of ICT specialist teachers to teach students computer skills; lack of computer availability; lack of time required to successfully integrate technology into the curriculum; lack of financial support. Therefore the authorities of institutions must be provided with adequate opportunities to enhance their knowledge in new technologies and equipments. The teachers should motivate to utilize the new technologies in their teaching. Periodical in-service training programmes should be organized to keep their interest and quest in teaching. The teachers should practice themselves to use the technology in class room teaching.

15. SUGGESTION FOR FURTHER RESEARCH

The present research study was conducted on the teachers of senior secondary schools. The followings studies were suggested to be conducted: -

1. Similar type of study may be conducted on other level i.e. primary, elementary etc.
2. It is suggested that same research study may be conducted on teachers in professional colleges.
3. Study may be conducted at college and university level to know the attitude of teachers.

On the basis of the findings the following suggestions are made to the Government, Headmasters and Teachers.

15.1 Suggestions to the Government-

1. The Government need to supply sufficient number of computers to each school on the basis of the average number of students in each class.
2. The provision may be created to meet the requirements of using the generator by way of special grant to run the computer laboratory. The grant may be used to get the systems repaired and for the fuel charges.
3. The instructors may be appointed on full time basis with better remuneration so as to prepare the students with good performers in computer education which would form the basis for their livelihood later for some students.
4. The teachers may be made responsible for the compulsory use of Information Technology in the class room instruction for disseminating the curriculum and for which the class rooms need to be accommodated with projector and screen and this may be considered by the Government.
5. The government may introduce monitoring mechanism for effective implementation of computer education programme.

15.2 Suggestion to the Headmaster

1. The Head master should accommodate required number of classes for providing hands on experience to the students to help them perfection in the basic skills of using the computer. Even out of school hours may also be used for computer education programme and this would be possible, if the Head Masters are committed a little bit to the profession and sympathetic towards students.
2. The Head Master may mobilize the community participation for running the computer education programme properly and effectively.
3. The Head Master should use the teachers who were trained in the absence of instructors for running the computer education programme.
4. The Head Masters need to bring to the notice of the Government the present position of the computer lab and the problems encountered by them in running the lab.

15.3 Suggestion to Regular Teacher

1. The services of those teachers who were trained in this programme may be used for the computer education instruction during the absence of appointed instructors.
2. The trained teachers may use computer in the classroom for subject teaching and it may be integrated in all the subjects.

16. CONCLUSION

The study demonstrated the fact that majority of the students didn't acquire the basic skills in computer education programme expected although huge amount of money was invested on this programme. There are many flaws such as the inability to provide sufficient practice to the students, non-functioning of computers, lack of commitment on the part of Headmasters and Instructors, lack of provision for repairs and fuel charges, insufficient space for laboratory and supply of insufficient number of computers played a role for poor performance of the students. Students have lot of interest in the programme as it would be bread and butter in future for them. There was no monitoring mechanism worked out for assessing the progress of the programme. Further internal assessment mechanism was not planned for implementing the programme effectively. The computer teachers are not getting

sufficient remuneration for their work. The Government has to address all the problems mentioned above to meet the requirements of the programme so as to make the programme more useful to the students, teachers and the school as a whole.

In the following lines, we are going to explain the conclusions in a specific and precise manner in order to help in the understanding of the object of study of this article.

1. The fact that sufficient computing resources, updated and in correct operation, it is an essential factor and necessary to qualify the possibility of applying technology in educational contexts requirement.

2. There is a positive attitude of teachers in inclusive classrooms to the use of ICT. Teachers are aware that ICT is an essential tool to support attention to student diversity.

3. Male teachers have more positive than female teachers towards ICT attitudes. By contrast, no differences between the genders are in the factor of the role of ICT in professional and educational development.

4. Attitude toward ICT is positive in both factors (Support for teacher professional development, and ability and availability). This may be associated with the presence in both schools called ICT coordinating teaching teams. This constitutes a very important 48 aspect, because the direct advice ultimately influence the decisions of teachers whether to use ICT in their educational practices (Lucas, 2008; Sime & Priestley, 2005).

5. The faculty has very positive attitudes towards ICT and attention to diversity thus share with colleagues the positive experiences where ICT is used, investigate and reflect on classroom practices in order to improve performances with these technologies. The implementation of constructivist theories for the design and support of activities or tasks with ICT support contributes to the positive growth of such attitudes.

6. Teachers, who have greater access to ICTs and therefore a greater chance of interacting with these, have more positive attitudes towards them. It is noteworthy that surveyed teachers in the classroom have access to these technologies, thus contributing to increased positive attitude.

7. Among the most important factors to provide good educational practice with the support of ICT power they are to stimulate learning and acquiring knowledge; adaptability of the tasks and activities to the heterogeneous characteristics of students; ability to enhance the autonomous individual and cooperative work of students, and its potential for evaluating educational tasks or classroom practices carried out by students.

8. Teacher training and optimum technological conditions to initiate processes of innovation and implementation of ICT appear as important factors in developing good educational practices in inclusive classrooms.

9. The use of ICT in classrooms allows a feedback from the student body, assuming one of the conclusions reached on Cerrilloetal.'s study (2014).

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