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ATTITUDE OF SCHOOL STUDENTS TOWARDS COMPUTER EDUCATION IN WEST BENGAL

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Abstract
Technologies are used for optimization of learning experiences which making the teaching –learning process effective, efficient and interesting. Computer is an important technology which is used Secondary and Higher Secondary Schools to modernize the educational system and improve the quality of education. The objectives of the paper are to find out the nature of attitude towards computer education and the differences attitude of computer education strata wise (grade & locality). Researcher framed three null hypotheses. 320 students of class IX and XII from three districts of WB was considered as sample and purposive sampling was used for sample selection. Researcher developed a tool to measure attitude towards computer education. The validity and reliability were estimated by applying Test-Retest Method and they were found sufficient for the study. After collection of data, 't' test was applied for testing hypotheses. All null hypotheses were rejected, hence it was found that significant differences existed grade wise and locality wise among the school students.

Keywords: Computer Education, School Students, Attitude.

Introduction

Technology is the main support for the students' learning developments and use for educational purposes has been a remarkable interest for a fairly longtime. It is challenging the boundaries of the educational structures that have traditionally facilited learning. The technology and learning process has been attracted by the coverage of a variety of technological, instructional developments in recent times. Recent advantages in computer technology, multimedia, Information and Communication Technology development and implementation of new and innovative teaching strategies. The process in computer technologies has greatly affected daily life. The use of computers in education is steadily increasing. The use of computers in education can be defined and determined in different ways specially, for the appropriate use of computer in high schools. Computer education has been embraced as one of the most potent means to ensuring rapid socio-economic process. It is now a common tool in education like other sectors. The computer as a tool can enhance students' learning and as a catalyst for improving access to quality education. Computer shift teacher-centered instruction to learner-centered instruction. It is the main technology support as a tool for effecting learning and teaching process. Computer based instruction and computers programs, tools as itself provides much facilities and supports to students' educational life.

As in large part of India, the state of West Bengal has been struggling with education its children. Different state government launched the ICT@ Schools Scheme in 2004 in India. It has been an important step in aliging ICTs in educational policy. This scheme is currently being implemented in Government schools as well as Government-aided secondary and higher secondary schools. In the year 2007-08, the Government of West Bengal started implementing this scheme by introducing computer education in 543 Government-aided higher secondary schools. In the following year, an additional 2498 schools were brought under the scheme. In 2009 under the Rashtriya Madhyamik Shiksha Abhiyan (RMSA), a central Government scheme for universalizing secondary education, West Bengal was selected to implement ICTs in schools. 1400 schools in West Bengal were each provided with 10 computers, 10 UPSs, 1 Scanner, 1 Web camera, 1 Projector and 1 Printer. The government of West Bengal was launched computer education each secondary and higher secondary schools for enhancing students' learning.

Review of Related Literature

The following review had been arranged according to the merit of importance and relevance to the present study as decided by the researcher:

Adebowale, adediwura and Bada (2008) in their study on 'Correlates of Computer Attitude among Secondary School Students in Logos State, Nigeria had shown that effective management of socio-demographic factors [like gender and field of study], and personality variables [like computer self-efficacy and computer anxiety] could significantly predict how learners will relate to the computer, their persistence at studying computing and its allied courses as well as the development of interest in computer and computer related vocations. School counselors and vocational guidance specialists have important roles to play in developing positive computer attitude in secondary school students by counseling them in gender relations to vocations and knowledge acquisition, usefulness of computers to students in all fields of study, counselling for confidence in handling computer and overcoming anxiety when using it. It is the view of the researchers that if these are properly managed, students attitude to computer, computing and computer vocations will be improved and many more will like to be involved in adopting computers and computing as a tool in the global march towards computerization and technological advancement.

Isman, Caglar, Dabaj, Altinay and Altinay (2002) in their study 'Attitude of Students toward computers' had examined that it is important to mention that computers require more alternatives and advantages to students and their educational studies. Computers provide fast, easy research and analysis for the students studying field. As a technological tool, it provides the equal standards, opportunities and easy path for the successful understanding and also meaningful learning for students. In order to be reflective, recommend on the usage of computers and facilities, there should be examination of the thoughts, attitudes of students towards computer.

Fancovicova and Prokop (2008) in their study 'Students' attitudes toward computer use in Slovakia' had described that a majority of Slovak schools accessed computers and internet only after 2000. Different financial support and schools' participation in various projects resulted in non-random distribution of computers across Slovakian elementary schools. Attitudes toward ICT were positive and gender differences were weak. Although we found school had an effect on the behavioural dimension of attitudes, it was not caused by the accessibility of computers per se.

However, large numbers of students per computer (up to N = 68) greatly reduced student's use of computers at schools. Lack of internet connection at home caused greater supplementation of internet-related activities in schools relative to home. Gender and age related differences in ICT participation were greatly influenced when comparing the home and school environment.

Objectives

The researcher considered the followings as the objectives of the study:

- To find out the nature of attitude towards computer education.
- To find out the differences attitude of computer education strata wise (grade & locality).
- To develop a tool for measuring attitude of computer education of school students.
- To measure the attitude towards computer education of school students.

Hypotheses

Researcher framed the following hypotheses for the study

- $H_{O.1:}$ There exists no significant difference in the mean scores of computer education between nine grade rural and urban students.
- $H_{O.2:}$ There exists no significant difference in the mean scores of computer education between twelve grade rural and urban students.
- $H_{O.1:}$ There is no significant difference of attitude towards computer education between nine grade and twelve grade students.

Methodology of the Study

This study was quantitative in nature and Descriptive Survey approach was applied for conducting the research.

Variables: Attitude of school students towards computer education was considered as the variable in the study.

Sample: 160 nine grade students (rural-80 & urban-80) and 160 twelve grade students (rural-80 & urban-80) from Bengali Medium Schools in the district of Nadia, Murshidabad and Alipurduar, West Bengal was considered and purposive sampling was used for sample selection. The distribution of the samples had been presented table-1

Table-1: Showing the Distribution of Sample

Localities	Group of Students		Total
	Nine Grade	Twelve grade	
Rural	80	80	160
Urban	80	80	160
Total	160	160	N=320

Tools Used: Researcher developed a tool to measure attitude of school students towards computer education. After item analysis 40 items were selected. The validity and reliability were estimated by applying Test-Retest Method and they were found sufficient for the study. Five point attitude scales was used, which contains 40^{th} statements, among 40 statements, 17 statements were positive & other 23 statements were negative to know the level of attitude about computer education.

Analyses and Interpretations

After collecting data researcher used different descriptive and inferential statistics. At first researcher confirmed the assumptions regarding using parametric test. Then the data were analyzed by applying t-test.

Table-1:'t'-test: Attitude towards Computer Education between nine grade rural and urban students

Group	No. of Participants	Mean	SD	SE_D	df	't' value
Nine grade rural Students	80	130.05	10.63			
Nine grade urban Students	80	137.60	12.16	1.8	158	4.19**

****Significant at 0.01 level**

The't' value was found to be significant; therefore the corresponding null hypothesis (**$H_{O.1}$**) was rejected. As such, it could be inferred that there existed significant difference in mean scores of attitude towards computer education of nine grade rural and urban students.

Table-2:'t'-test: Attitude towards Computer Education between twelve grade rural and urban students

Group	No. of Participants	Mean	S.D.	SE_D	df	't' value
Twelve graderural Students	80	139	11.50			
Twelve grade urban Students	80	146.72	12.82	1.92	158	4.02**

****Significant at 0.01 level**

The 't' value was found to be significant, therefore the corresponding null hypothesis (**$H_{O.2}$**) was rejected. As such, it could be inferred that there existed significant difference in the mean scores of attitude towards computer education of twelve grade rural and urban students.

Table-3:'t'-test: Attitude towards Computer Education between nine grade and twelve grade students

Group	No. of Participants	Mean	S.D.	SE_D	df	't' value
Nine grade Students	160	133.82	11.99			
Twelve grade Students	160	142.86	12.74	1.38	318	6.55**

****Significant at 0.01 level**

The't' value was found to be significant; therefore the corresponding null hypothesis (**$H_{O.3}$**) was rejected. As such, it could be inferred that there existed significant difference in the mean scores of attitude towards computer education of nine grade and twelve grade students.

Findings

On the basis of the statistical analysis and interpretation the findings of the present study could be reiterated as below:

- Significant difference was found in the mean scores of computer education between nine grade rural and urban students, wherein; the computer education scores of urban was significantly high.
- Significant difference was found in the mean scores of computer education of twelve grade rural and urban students, wherein; the computer education scores was significantly higher than the rural students.
- Significant difference was found in the mean scores of computer education of nine grade and twelve grade students, wherein; the attitude scores were significantly higher twelve grade students than the nine grade students.

Conclusion

In grass root level, particularly from school level, the educational system should be designed in such a manner that each student would be the future citizens. For this purpose, over a period of time, computer education as a subject in curriculum at school level has been included aiming to provide the right kind of knowledge and information about the computer for enhancing students' learning. India is a developing country. So, to implement the computer education in school level all academic community i.e. teachers, students, scholars, Govts., NGOs, and others should come together to make success of this programme.

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