

**COMPARISON BETWEEN PUBLIC AND PRIVATE SECONDARY
SCHOOLS REGARDING ICT FACILITIES IN COMPUTER LABS**

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ABSTRACT

The aim of this study was to check the provision of ICT facilities in public and private secondary schools' computer labs in Punjab. The population of the study was included all the public and private secondary schools of Punjab. The study was delimited to only Faisalabad Division, Punjab. A sample of 10% was drawn from the accessible population. The study was a descriptive survey type. The researcher used a checklist as a research instrument. It was found that majority of public and private secondary schools' computer labs had the facilities of desktops, students' chairs, Internet, printer, and UPS. The majority of public and private secondary schools' computer labs had not the facility of video cameras, multimedia projector, and overhead projector. The majority of public secondary schools' computer labs had not the facility of generator, and the majority of private secondary schools' computer labs had not the facility of the air conditioner.

KEYWORDS:

Computer Labs, Facilities, ICT, Public Schools, Private schools.

INTRODUCTION

Information and Communication Technology (ICT) is defined as a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. In the present era, ICT mainly comprises of Computer Technology (CT) with its hardware, like personal computer (PC) machine, infrastructure required for setting up Internet facility and also software like, CD ROM including various program packages, E-learning strategies, etc. Also, ICT in education is the supporting material in the hands of the human resources involved in the instructional process in order to enhance the quality of education and students' learning (UNESCO, 2002).

ICT in education is any educational technology that is applied in the educational process. It encompasses Hardware approach like the use of machines and materials, Software approach like the use of methodologies and strategies for teaching and learning activities, and Systems approach that uses the management technology that deals with the systematic organization of the hardware and the software approach (Sharma, 2003). Different software packages are being used in education system; e.g. Library software, administration software, software related to managing the entire teaching learning process, etc. (Sanyal, 2001).

According to Webb (2007), ICT has changed the ways people communicate; resulting in significant innovations and transformations in agriculture, education, medicine, engineering, industry, business, and many other fields, etc. ICT has great potential to change the nature of the delivery of quality education, teaching methods, and the role of teachers and learners in teaching learning process. ICT based tools and technologies challenge the traditional concept of teaching learning methods and materials; and it reconfigures how teachers and students access to new knowledge and skills. To meet this challenge, schools should use ICT for teaching and learning to move towards transforming the conventional method of teaching and learning. ICT has made remarkable progress in the last few decades in education sector across the globe (Loveless, 2003).

In education system, the use of ICT has become imperative to improve the efficiency and effectiveness at all levels; and both at the formal and non-formal settings. Profound technical knowledge and positive attitude towards this technology are the prerequisites for the successful learners of the present and coming era (Kozma, 2005).

The education system in Pakistan consists of three stages viz: Elementary education, Secondary education, and Higher education. The secondary education (SE) is considered as an important stage in the life of a student like other stages. Therefore, it is the need of the hour to use ICT in secondary education to achieve the desired objectives regarding students' learning outcomes (Rasul, 1998).

In the present age, the progress and prosperity of the developed countries are lying in the effective use of ICT based knowledge and skills in their educational system for Human Resource Development (HRD), and in the provision of Quality Education (QE) to the learners. Proper use of ICT is a source of the enhancement of the knowledge; skills; and improvement in teaching learning process both for the teachers and students. Also, the use of ICT develops students' cognitive skills, critical and reflecting thinking. Developed countries of the world have been spending a lot of resources on the ICT infrastructure in schools, over the past few decades (Volman, 2005).

All the developing countries are also focusing on the integration of ICT in teaching and learning practices; and are establishing computer labs in schools. Pakistan is also a developing country and is making progress in every field of life but the proper use of ICT in schools is not up to the mark in this regard. A large number of teachers in Pakistan are still using traditional methods of teaching and learning to disseminate knowledge and skills to the learners.

Poor infrastructure in schools and lack of proper finance are the major obstacles in the proper utilization of computer labs in Punjab. The Government of Punjab had taken significant steps and 4286 computer labs were established in the public secondary and higher secondary schools in 2009. It was a great initiative to provide modern ICT facilities in public secondary schools. Modern ICT tools such as computers and high speed Internet were provided, under this project in every public secondary school and higher secondary schools in Punjab (Punjab IT Labs Project, 2009).

On the other side, the private sector has also become the back bone of the economic development of a country. The private sector has been playing a vital role in the

promotion of ICT based knowledge and skills. Private schools are making effective use of ICT tools to enhance students' learning outcomes. The public and private secondary schools which are equipped with ICT facilities can provide quality education to the students in a better way. Therefore, the use of ICT in educational activities is a source of the improvement in teaching learning activities (Long, 2001).

Therefore, the major purpose of this study was to check the proper use of computer labs in public and private secondary schools in Punjab. At present, public and private secondary schools are motivating their students to use modern technologies in their teaching learning practices. In order to gain competencies to the use of ICT based knowledge and skills, it is necessary to provide students with complete access to the computer labs to obtain knowledge and skills regarding computer hardware and software (McGorry, 2002).

In a study Stallard (1998) identified several obstacles in the use of technology, such as: i) limited number of computers; ii) shortage of quality software; iii) lack of time; iv) technological problems; v) teachers' and students' perceptions towards use of computers; vi) teachers' low confidence towards technology; and vii) unclear direction towards the integration of technology in curriculum.

Objective of the Study

- To compare ICT facilities between public and private secondary schools' computer labs.

Research Question

- Is there any difference regarding ICT facilities in computer labs of public and private secondary schools'?

Procedure of the study

This study was descriptive survey type by method and quantitative by approach. All the public and private secondary schools of Faisalabad division were taken as the accessible population. The researcher used check list as the research instrument to collect the data about the availability of ICT facilities in computer labs. The researcher personally visited the sampled schools in order to collect the data. The researcher filled checklists with the help of IT teachers. The responses were organized and the data were tabulated, analyzed and interpreted by using the Chi-Square statistical technique.

RESULTS

90% public and 80% private schools had the facility of desktops for their students in computer labs. The value of Chi-square (χ^2) showed a non-significant difference between both categories of schools; $\chi^2(1, N=151) = 1.405, p>.05$. Statistically, it is concluded that schools of public and private sectors have similar desktops facility for their students in computer labs.

89% public and 93% private schools had the facility of students' chairs in computer labs. The value of Chi-square (χ^2) showed a non-significant difference between both categories of schools; $\chi^2(1, N=151) = 0.468, p>.05$. Statistically, it is concluded that

public and private sectors' schools have similar facility regarding students' chairs in computer labs.

Only 17% public and 35% private schools had the facility of video cameras in computer labs. The value of Chi-square (χ^2) showed a highly significant difference between both categories of schools; $\chi^2(1, N=151)=12.964$, $p<.001$. Statistically, it was concluded that private schools had higher facility than public schools regarding video cameras in computer labs.

Only 16% public and 19% private schools had the facility of multimedia projector in computer labs. The value of Chi-square (χ^2) showed a non-significant difference between both categories of schools; $\chi^2(1, N=151) = 3.703$, $p>.05$. Statistically, it is concluded that public and private sectors' schools have a similar facility regarding multimedia projector in computer labs.

Only 16% public and 19% private schools had the facility of printer. The value of Chi-square (χ^2) showed a non-significant difference between both categories of schools; $\chi^2(1, N=151)=1.607$, $p>.05$. Statistically, it is concluded that public and private sectors' schools had similar facility regarding printer in computer labs.

56% public and 36% private schools had the facility of air conditioner in computer labs. The value of Chi-square (χ^2) statistic shows a significant difference between both categories of schools; $\chi^2(1, N=151)= 6.064$, $p<.05$. Statistically, it was concluded that public schools had higher facility regarding air conditioner than private schools in computer labs.

Only 13% public schools and 67% private schools had the facility of generator in computer labs. The value of Chi-square (χ^2) showed a highly significant difference between both categories of schools; $\chi^2(1, N=151)= 66.700$, $p<.001$. Statistically, it was concluded that private sector schools had higher facility regarding generator than public schools in computer labs.

99% public and 96% private schools had the facility of Internet in computer labs. The value of Chi-square (χ^2) statistic shows a non-significant difference between both categories of schools; $\chi^2(1, N=151)= 1.512$, $p>.05$. Statistically, it is concluded that public and private sectors' schools had similar facility regarding Internet in computer labs.

Only 13% public schools and 39% private schools had the facility of overhead projector in computer labs. The value of Chi-square (χ^2) statistic shows a highly significant difference between both categories of schools; $\chi^2(1, N=151)= 13.318$, $p<.001$. Statistically, it is concluded that private sectors' schools had higher facility regarding overhead projector than public schools in computer labs.

89% public schools and 100% private schools had the facility of UPS in computer labs. The value of Chi-square (χ^2) shows a highly significant difference between both categories of schools; $\chi^2(1, N=151)= 7.634$, $p<.01$. Statistically, it is concluded that public and private sectors' schools had a similar facility regarding UPS in computer labs.

FINDINGS AND DISCUSSION

It was found that majority of public and private secondary schools' computer labs had the facilities of desktops, students' chairs, Internet, printer, and UPS. The majority of public and private secondary schools' computer labs had not the facility of video cameras, multimedia projector, and overhead projector. The majority of public secondary schools' computer labs had not the facility of generator; and the majority of private secondary schools' computer labs had not the facility of air conditioner.

In a study Rodden (2010) investigated the barriers in the proper utilization of computer labs by the students and teachers such as the missing of computers in the schools, non-familiarity of ICT skills by teachers, lack of time, insufficient finance, and lack of access of students to the computer labs. The findings of the present study are also consistent with Rodden's findings.

It was concluded through the findings of this study that computer labs in both public and private sectors are not working properly due to different reasons, but the major cause which is lying behind was the lack of proper funding.

RECOMMENDATIONS

- Facilities of video cameras, multimedia projector, and overhead projector should be provided both in public and private secondary schools' computer labs;
- Facility of generator should be provided in public secondary schools' computer labs to face the challenge of load-shedding; and
- Facility of air conditioner should be provided in private secondary schools' computer labs for the provision of conducive environment for the students and teachers;
- Punjab Education Department and school management should provide sufficient funds for the proper usability of computer labs.

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