

Assessment of Computer Literacy at Secondary Education Level in Rural Areas of Sindh (Pakistan)

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Abstract: Efforts have been taken to some extent in public sector schools but no constant attention and continuous interest is paid to fill the digital gap. Education and ICT can be sound and significant if these kept beyond the political priorities in Pakistan. Urban areas of t Pakistan are well equipped with sound facilities and education of recognized quality but rural areas suffer from this experience. Expansion of private sector in education system has elevated the use of ICT accordingly and middle and upper class families prefer to get services from private schools for quality education of the children. This research recommends that ICT practice should be uniform in all units of Pakistan. ICT application should not be left on the sympathy of conditions as this system needs strong leadership.

Index Term: ICT, Secondary Education, learning, Training.

I. INTRODUCTION

Scope and application of technology in global trends derived the priority to focus on the influence of ICT. This study aimed at understanding ways and levels of ICT application at secondary schools in Pakistan. Schools which do not adopt the use of new technologies, find it difficult to new era of technology.

The repercussions of ICT are essential for the progress in developing countries [1]. Society has multidimensional positive aspects depending upon information and its utilization. Development is brought by the technology which has huge impact in our lives, will continue till new breakthroughs provide entirely new ways of living [2]. ICT has foundation for the growth of any nation in emerging trends and drives it to adopt such measures to deal with issues such as infrastructure, technical human resources, free government, and matters related to capacity building [3].

II. SIGNIFICANCE OF ICT IN THE SECONDARY SCHOOLS:

Information society has high preference everywhere in the world; Universal need of the ICT in the worldwide is spreading. It has been main focus of the European countries to use ICT in education since last decade. Schools of many countries have advanced by using ICT or digital learning [4].

Literature emphasizes on successful ICT implementation in the countries like Japan, Malaysia, Spain and Israel has shown great zeal on ICT implementation at primary school level. The incorporation of ICT into the school has shown great impact on the students of these countries [5].

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Students take advantage from the e-learning; and the Teacher plays main role in motivation of students and giving them a learning environment [6]. Emphasis on integration of ICT across the secondary education has paved the way for learning. Study shows 75% students use web searches for the information unavailable in text books. 63% students showed their interest in Technology Studies in a survey held to determine their interest. Distance learning was impossible without ICT and it is ICT which has made it convenient for students to get information of all national and international universities sitting at their home) Traditional education environment cannot make students productive to function in modern workplace [7].

III. RESEARCH OBJECTIVES:

- To assess the behavior of public Schools regarding the implementation of ICT
- To examine the causes of low level of ICT application in public secondary schools
- Merger of ICT in public secondary schools in Pakistan

IV. RESEARCH METHODOLOGY

The system of collecting data for research was in a descriptive as well as in statistical form according to the nature and scope of the topic.

1. RESEARCH DESIGN

This research followed mix methodology of two major types, qualitative and quantitative. In qualitative research, data was collected, analyzed and interpreted according to the topic, whereas in quantitative research empirical investigations were conducted by taking test from the students and their results.

2. DATA COLLECTION TECHNIQUES

Data collection is the process of gathering and measuring information on variables of interest, in a systematic way that enables one to answer stated research questions, test hypotheses, and evaluate outcomes. In this research two different approaches are adopted in collecting data, primary and secondary source.

3. PRIMARY SOURCE

Primary sources are used to be the first hand, therefore, a case study of public sector schools was conducted in order to gather the information, a training activity was organized, a survey of different schools was held, and short interviews were conducted from the heads of schools to evaluate the information.

4. SECONDARY SOURCE:

Secondary sources were based on primary sources. Secondary sources were research articles, news paper

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articles, reports and data collected from the websites of different agencies was interpreted.

5. DATA COLLECTION

An extensive method was adopted to collect the complete data. Method contained a case study of public sector school, where an experiment was conducted. In that experiment training of ICT was organized. Training was consisted of feedback form filled by the students of secondary classes, orientation, test and assessment. Beside this, a survey of public sector schools was conducted and short interviews were held with the heads of schools.

6. CASE STUDY (EXPERIMENT)

Case studies are analysis of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more methods. In this research, there was a case study of public sector school Tandojam was conducted. A training activity was organized at the school Selection of the students was based on following factors:

- Those who had neither computer nor internet access
- Those who had only computer access
- Those who had both internet as well as computer access

7. ORIENTATION

Training was conducted for the students of secondary class. They were given basic information about the ICT, its scope and application.

8. TEST

After the training, simple objective type test was taken. Test contained basic questions about the computer, internet and its application. This test was prepared with the combination of books of four different private schools.

9. SURVEYS

A survey was conducted across many private and public schools in Hyderabad and Tandojam. Information was collected in same parameters as discussed in finding section. Following schools were surveyed:

- Government High School 1, Tandojam
- Government High School 2, Tandojam
- Government High School, Tando Qaisar
- Government High School, Moosa Khatyan

10. SHORT INTERVIEW

Short interviews were conducted from the following heads of Schools to extract the information:

- Government High School 1, Tandojam
- Government High School 2, Tandojam
- Government High School, Tando Qaisar
- Government High School, Moosa Khatyan

V. RESULTS AND DISCUSSION

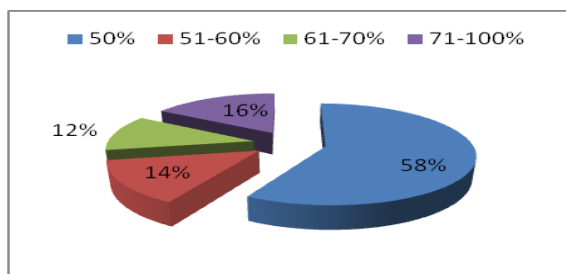


Fig. 1: (Public Sector School Questionnaire)

Result of the 42 students is assessed with the help of MS Excel and divided into four categories of outstanding, excellent, good and satisfactory. In the category of outstanding, those students are included who have obtained score of 70 % or more than 70%. In the category of excellent, those students are included who have obtained score of 60 % to 70%. In the category of good, those students are included who have obtained score of 50 % to 60%. In the category of satisfactory, those students are included who have obtained score of 50 % or less than 50%. As figure 1 shows that 58% of the total students had taken part in 50% and below than 50% in the questionnaire test, this percentage represented the active contribution by their intelligence, as there were 14% students who had participated 51-60% of the questions. There were only 12% Students, who had attempted the questions between 60 to 70% and only 16% students who were standing at 70% above than 70% of the questionnaire.

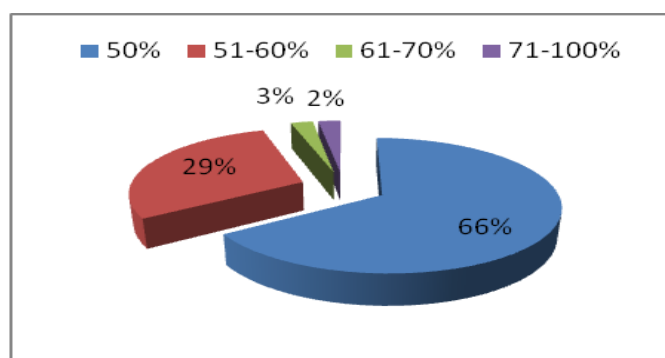


Fig. 2: (Result of the Public Sector School Students in the test)

Result of the 42 students is assessed with the help of MS Excel and divided into four categories of outstanding, excellent, good and satisfactory. In the category of outstanding, those students are included who have obtained score of 70 % or more than 70%. In the category of excellent, those students are included who have obtained score of 60 % to 70%. In the category of good, those students are included who have obtained score of 50 % to 60%. In the category of satisfactory, those students are included who have obtained score of 50 % or less than 50%. Fig. no. 2 shows that there are 66% who were under the range of 50% score while there were 29% students who had under the range of 51 to 60% score, However, there were 3% of total students who had under the range of 61 to 70% of the test and only 2% student who had been standing 70% and onward.

VI. KEY FINDINGS & RECOMMENDATIONS

#	KEY FINDINGS	SUB FINDINGS
1	Financial resources	Limited budget allocation Low salaries to staff
2	Human Resources	Insufficient IT teachers Ghost teachers Highly qualified but untrained
3	Infrastructure	

4	Information Resources
	Curriculum/Syllabus
	Medium of Instruction
	Internet

VII. LIMITATIONS

1. Time constraint
2. Financial constraint
3. Resources constraint

VIII. FUTURE RECOMMENDATIONS

- Selection of staff on merit
- I.T Teachers as per need
- Training & development in respective discipline
- Books and journals facility

IX. RESEARCH CONTRIBUTION

Hence, the finding can benefit policy makers to strive for the improvement of policies regarding ICT so as to coop with the challengers of modern world and future.

X. CONCLUSION

ICT in education system is only track that can bring revolutionary changes in students, teachers and institutions of Pakistan in rural areas. Revolutionary changes can become certain when foundation is strong. Foundation of education is primary and secondary education. Differences in primary and secondary education system of Public and Private sector have created a class system in society. These discriminations of class system stand as main hindrances in harmony of society. It is mandatory to bring uniform education system in secondary schools in Pakistan.

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