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# Evaluation of ICT Education in Private Secondary Schools: A Case Study of Hyderabad, Sindh

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## ABSTRACT

This research determines the effects of ICT (Information and Communication Technology ) on the upcoming generation of urban and suburban communities. For this study, private schools in Hyderabad, Sindh, Pakistan are chosen. First of all, trainings are conducted at selected area. Based on the trainings, the tests are prepared and then students are examined. It was found that if proper management of ICT tools are put in place, the students exhibits more tendencies towards the understanding and application of ICT tools. Moreover, the interviews with different stakeholders are made to validate the findings.

**Key Words:** Information and Communication Technology, Training, Secondary Class Education, Student Tendencies.

## 1. INTRODUCTION

Considering the prevailing global trends in education, computer study should be treated as a compulsory and students should be given free access to computer and internet application during computer class and free period as ICT is increasingly being used to deliver on promises of universal education [1]. Better secondary education is vital to build an efficient and effective human resource of every country [2]. Significance of ICT in secondary schools cannot be exaggerated, in this digital age ICT skills are becoming ever mandatory to survive. Many institutions perceive it very crucial that ICT orientation to their students and update their soft skills. This needs immediate acquisition of ICT skills by students [3].

Learning is a constant process as learning process needs innovative tools and techniques to acquire the updated information. It has been found that ICT is a ladder to

access the variety of updated information across the world. ICT has become basic factor of foundation of information society. ICT has integrated with society for different purposes like, communication, entertainment, Shopping and Education. Accordingly education paves the ways for the permanent development of human life [4].

Major use of ICT in education is to discover the information through research as ICT promoted ability to dynamic learning in schools [5]. Literature signify technology a tool to develop technical skills of teaching and learning, it helps in education practice, strengthens the professionals, promotes economic feasibility, aid to schools up gradation and unite the schools with real world [6].

Proper application of ICT has strong influence on schools learning by creating coordination and collaboration

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between student, teacher and academic activities. Moreover, ICT use can assist the students in current studies as well as in future professional life [7]. Furthermore, research suggests that Technology partially Support in the integrated environment of learning [8].

### **1.1 Significance of ICT Education in Secondary Schools of Pakistan**

Gaps are found prevailing between private and public sector in the developing countries. There is considerable difference in degree of adaptation of ICT at secondary level education. However, there is minimum difference in developed nations. This study emphasis private sector schools have high productivity due to assuming all emerging trends of learning [9].

ICT has power to bridge the knowledge gap in progress of education and educational opportunities through infinite access to resources and people [10] Application of ICT in classes is important to facilitate students to learn to operate in information age [11]. In order to implement ICT in secondary class education, it is necessary to have a trained ICT workforce in Pakistan [12]. Technology can play a part in supporting face-to-face teaching and learning in the class room [13].

## **2. LITERATURE BACKGROUND**

ICT and Education is an instrument for Pakistan to compete with rest of the world for the propensity of opportunities and prosperity. The diffusion of technology into education is crucial than technology investments in the country. Telecommunication has served the purpose of ICT in the country which has participated in economic empowerment. It is suitable venue to establish ICT in every sector for development of the country [14].

The education through ICT can accelerate the learning process of the students and can facilitate the students to

improve their skills and develop capacity for the information. Emerging technologies facilitate the students and institutions of Pakistan in various aspects of assignments, presentations, and projects [15].

ICT has been commonly used in the education institutes in major cities of Pakistan. While in comparative case, study found that there is 50% use of ICT in the public sector schools mostly at secondary level. Several factors like lack of infrastructure, lack of funds, poor policy, resist the complete application of ICT. [16].

Students have potential to adopt the ICT if they were provided with environment. Provision of hardware, software, internet, infrastructure etc could make the suitable environment for the learning process. Most of the students belong to rural areas and due to lack of facilities, they have interest but they lack aptitude [18].

## **3. RESEARCH OBJECTIVES**

- ◆ To evaluate implementation of ICT in private Schools.
- ◆ To examine the causes of low level of ICT application.
- ◆ To assess the potential interest and aptitude of students to study ICT in private secondary schools in Pakistan.

## **4. RESEARCH METHODOLOGY**

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

### **4.1 Research Design**

This research followed mix methodology of two major types, qualitative and quantitative. In qualitative research, data was collected; analyzed and interpreted with respect

to the topic where as in quantitative research empirical investigations were conducted by taking test from the students and their results.

#### 4.2 Primary Source

A case study of private 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.

#### 4.3 Secondary Source

Secondary sources were research articles, news paper articles, reports were studied and data collected from the websites of different agencies was interpreted.

#### 4.3 Data Collection

An extensive method was used to collect the data. An experiment was conducted in a private school at Hyderabad, Sindh, Pakistan where training of ICT, orientation, test and assessment was organized. Beside this, Private sector schools were surveyed and short interviews were conducted with the heads of schools.

#### 4.4 Experiment

In this research, there was case study of Private Schools Hyderabad. A training activity was organized at Private Schools Hyderabad.

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.

#### 4.5 Feedback Form

A feedback form of 25 objective questions was offered to secondary class students at private sector schools.

1. Who is Computer Literate at your home?
2. Do you use computer?
3. Who guides you about the computer at home?
4. Where do you use computer at?
5. Where do you use internet at?
6. Do you have computer at Home?
7. Do you have Printer at home?
8. Do you have internet at home?
9. How many hours you use Computer at Home?
10. Do you study computer/Information Technology Subject at School?
11. Who teaches you computer Subject?
12. How many teachers do you have for Computer/IT Study?
13. Do you have computer lab at School?
14. When do you use computer at home?
15. For what purpose, you use computer?
16. For what purpose, you use internet?
17. Do you have E-mail ID?
18. What is your E-Mail ID?
19. Select any one that you use for Email
20. Which search engine do you use?
21. Do you use email?
22. Do you use Skype?
23. Do you use Facebook?
24. Since how many years, you have been using computer?
25. Since how many years, you have been using Internet?

#### 4.6 Orientation

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

#### 4.7 Test

After the training, simple objective type test was held. Test contained basic questions about the computer, internet and its application.

#### 4.8 Surveys

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

- ◆ Fauji Foundation School, Latifabad.
- ◆ Bahria Foundation School, Gulistan-e-Sajjad.
- ◆ City School, Qasimabad.

#### 4.9 Short Interview

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

- ◆ City School, Hyderabad.
- ◆ Fauji Foundation School, Hyderabad.
- ◆ Sindh Academy High School, Hyderabad.

### 5. RESULTS AND DISCUSSION

As Fig. 1 shows that there were 39% of the total students who had obtained 50% score of the test. There were 9% students who had secured score from 51-60%. There 12% students who had obtained score in the range of 61-70% and 40% students had obtained 70% and above than 70%.

Fig. 2 shows that there were 17% students who had secured score under 50% of the total marks in the test as there are 42% students who were between 51-60%. While there were 18% students who had obtained score between 61 and 70% while there were only 23% students who had exceed 70%. Key findings as shown in in Table 1.

It is entailed here that all the finds of this study are grouped in to four categories with respect to the nature and requirement. Focusing upon the research objectives, first one of key objectives is financial sources; this is major barrier toward complete implementation of ICT study at grass root level but private sector schools have own source of generating funds to deal with financial challenges while transfer of trainings is found vital factor

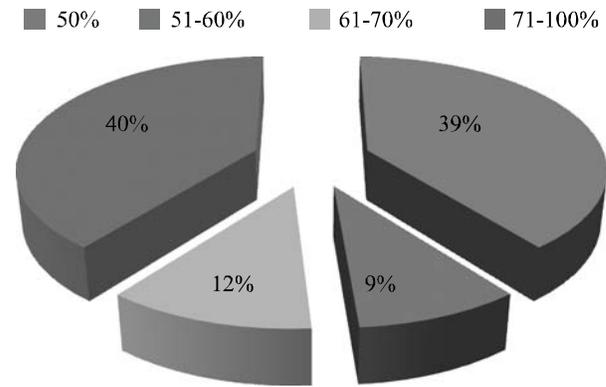


FIG. 1. OUTPUT OF PRIVATE SECTOR SCHOOL IN QUESTIONNAIRE

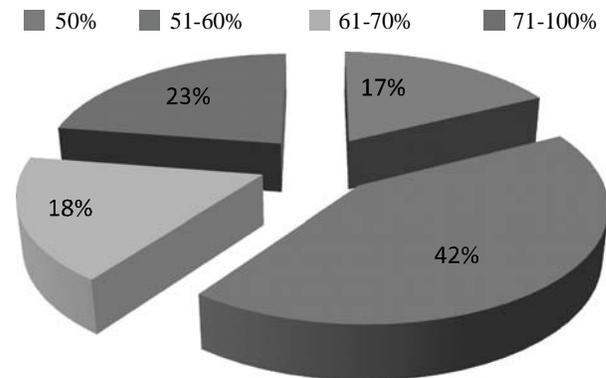


FIG. 2. RESULT OF THE PRIVATE SECTOR STUDENTS IN THE TEST

TABLE 1.

No.	Key Findings
1.	Financial resources
2.	Human Resources
3.	Physical Resources
4.	Information Resources

for the professional growth. Construction of buildings was not sufficient but timely repairing and furniture requirements were also most crucial. Above this all, information resources like computer system for the use of students and internet facility was observed best priority and mandatory in the private schools.

## **6. LIMITATIONS**

- (1) Time constrain was limited.
- (2) Since the questionnaire designed to measure the impact of ICT on secondary class students and the attitude towards the use of ICT might give useful information about the impacts of ICT; it seems not to provide enough evidence of the student's performance to ICT and their skills in ICT.
- (3) There were no funds available to meet the expenses of arranging training, transport to remote and distant areas and other mischievous expenses. If there was any source of funding, the scope of the research may be wider and extensive.

## **7. RESEARCH CONTRIBUTION**

This study may prove to be one of the mechanisms to undertake the usage of ICT within the private schools in Pakistan. Hence, the findings may benefit the policy makers and managers at private sectors to strengthen the policies to exploit the benefits of ICT usage for the future growth of the country.

## **8. CONCLUSION**

Study investigated that ICT has not been treated here as globally preferred. 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 area of the Pakistan

is 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 and sub-units of Pakistan. ICT application should not be left on the sympathy of conditions as this system needs strong leadership. 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. It is mandatory to bring uniform education system secondary schools in Pakistan.

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## **REFERENCES**

- [1] Kelly, T., "Survey of ICT for Education in India and South Asia", January 5, 2012 Retrieved from: <http://www.infodev.org/en/Project.103.html>, 2010.
- [2] Evoh, C.J., "Policy Networks and the Transmission of the Secondary Education through ICTs in Africa: The Prospects and Challenges of the NEPAD E-Schools Initiative", *International Journal of Education and Development Using Information and Communication Technology*, Volume 3, No. 1, pp. 64-84, March 17, 2012 Retrieved from: <http://iiedict.dec.uwi.edu/include/getdoc.php?id=2198&article=272&mode=pdf>, 2007.

- [3] Adomi, E.E., and Anie, S.O., "An Assessment of Computer Literacy Skills of Professionals in Nigeria University Libraries", *Library Hi Tech News*, Volume 23, No. 2, pp. 10-14, 2006.
- [4] Wan Z.W.A., Hajar, M.N., Azimi, H., and Hayati, A., "The Conditions and Level of ICT Integration in Malaysian Smart Schools", *International Journal of Education and Development using ICT*, Volume 5, No. 2, December 11, 2009. Retrieved from: [www.nitda.gov.ng/nigeriapolicy.pdf](http://www.nitda.gov.ng/nigeriapolicy.pdf). Madu2000and Fapothunda1999, 2009.
- [5] Lewis, J., "Information & Communications Technology in Education", June 28, 2011 Retrieved from: [http://www.ehow.com/about\\_7939867\\_information-communications-technology-education.html](http://www.ehow.com/about_7939867_information-communications-technology-education.html), 2011.
- [6] Schacter, J., "The Impact of Technology on Student Achievement: What the Most Current Research has to Say, Milken Exchange on Educational Technology", Milken Family Foundation, New York, 1999.
- [7] OECD, "Are Students Ready for a Technology-Rich World? What PISA Studies Tell Us", OECD, Paris, April 13, 2012 Retrieved from: <http://www.oecd.org/dataoecd/28/4/35995145.pdf>, 2005.
- [8] Otto, T.L., and Albion, P.R., "Principals' Beliefs About Teaching with ICT", *International Conference of the Society for Information Technology and Teacher Education*, Atlanta, Georgia, 2004.
- [9] Pritchett, L. and Viarengo, M., "The State, Socialization, and Private Schooling: When will Governments Support Alternative Producers?", July 7, 2011, Retrieved from: <http://www.hks.harvard.edu/fs/lpritch/Education%20%20docs/ED%20%20Gov%20action/Ideology%20and%20Private%20Schooling.pdf>, 2008.
- [10] Asian Development Bank, "Good Practice in Information Communication Technology for Education", Retrieved on October 27, 2011 from: <http://www.spreadcorp.org/ajote/vol1-1/akindoju-etal.pdf>, 2009.
- [11] Bingimlas, K.A., "Barriers to the Successful Integration of ICT in Teaching and Learning Environments: A Review of the Literature", *Eurasia Journal of Mathematics, Science & Technology Education*, Volume 5, No. 3, pp. 235-245, 2009.
- [12] Khan, H.A., "Reforming Our Education System", February 09, 2012 Retrieved from: <http://www.humayunakhtarkhan.com/reforming-pakistans-education-system/>, 2011.
- [13] Sohaib, A., "Integration of ICT in Curriculum Expected Achievement and Challenges", September 12, 2011 Retrieved from: <http://ictcourses.net/integration-of-ict-in-curriculum-expected-achievement-and-challenges/>, 2010.
- [14] Nisar, M.W., Munir, E.U., and Shad, S.A., "Usage and Impact of ICT in Education Sector; A Study of Pakistan", *Australian Journal of Basic and Applied Sciences*, Volume 5, No. 12, pp. 578-583, 2011.
- [15] Shaikh, Z.A., and Khoja, S.A., "Role of ICT in Shaping the Future of Pakistani Higher Education System", *The Turkish Online Journal of Educational Technology*, Volume 10, No. 1, January, 2011.
- [16] Fatima, H.Z., Shafique, F., and Firdous, A., "ICT Skills of LIS Students: A Survey of Two Library Schools of the Punjab", *Pakistan Journal of Library & Information Science*, 2012. Available at <http://pu.edu.pk/home/journal/8.2012>.