

A STUDY OF NEED ASSESSMENT OF LARGE SCREEN TO PROJECT PC IN COMPUTER LABS OF GOVERNMENT HIGH SCHOOLS

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ABSTRACT

In Punjab IT lab project, every school is equipped with 3 desktop PCs and 12 virtual desktops with powered by Microsoft technologies, high speed internet connection and state of the art hardware solutions from companies like Inbox, Siemens, PEL, NComputing, PTCL, New Horizon. The researchers personally visited the computer labs of government high schools and examined physical conditions of the labs. Discussion with IT teachers, a number of problems came in list and one of them was large screen to project PC. The purpose of the study was to identify the need and importance of large screen to project PC to help the students and teachers. Thirty (30) male and 30 female IT teachers of government high schools of District Multan (Punjab Province) were treated as sample of the study. A questionnaire was developed for the collection of data. Expert opinions were asked to improve and finalized the data collection instrument. Questionnaire was consisting of two parts. The five (5) items were developed keeping in view the need and importance of large screen to project PC. The questionnaire was designed on the basis of 5-point Likert's scale. Enlist the difficulties while delivering lecturers without rear projected television. Data was collected and conclusions were drawn on the basis of findings (statements having mean greater than 3.00 were accepted) and problems mentioned by 75% of IT teachers were enlist. It was recommended that to improve the quality of teaching and to support the teachers during the lectures, it is highly recommend the use of large screen to project PC in computer labs of secondary schools of Punjab province.

Keywords: Large screen, To project PC, Computer Labs, Government high schools.

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INTRODUCTION

Management and professional workers explore the power of the personal computer because of access of financial information, strategic information or databases etc. (Sheehy, 1986). A technological revolution is changing way of life and an informed society is leading in our global village (Chaudhary & Bukhari, 2003). To overcome the digital divide Chief Minister Punjab Mian Shahbaz Sharif initiated Punjab IT labs project in Government schools. This project was completed in a record time of 110 days and over 4286 schools were covered in this project. This initiative will revolutionize the education sector and the new generation will play an important role in the progress and development of the country with adequate IT education (Punjab IT Labs Project, Govt. of Punjab, 2009). In Punjab IT lab project, every school is equipped with 3 desktop PCs and 12 virtual desktops with powered by Microsoft technologies, high speed internet connection and state of the art hardware solutions from companies like Inbox, Siemens, PEL, NComputing, PTCL, New Horizon. All the labs are also equipped with cooling and power backup solutions. The project was executed and monitored by Microsoft technologies of project monitoring & collaboration with the assistance of Hospex Consulting Services (Topix, 2011; Interface, 2010).

The Objectives of the Project are:

- To equip Govt. High & Higher Secondary Schools with the Computer Labs for I.T awareness, I.T enablement, development of I.T skills and introduction of Computer Science among the students in Secondary and Higher Secondary Schools. In this way overwhelming majority of the High /Higher Secondary schools will be covered.
- To help the country in identifying students with aptitude for I.T. learning during Secondary/Higher Secondary education. This would offer better opportunities to the nation to select the best talent amongst a large population base.

Hardware provided to each Lab

- 1 Server
- 3 Desktops
- 15 Terminals
- 1 Split type Air Conditioner (1.5 tons)
- 1 UPS (3 KV)
- 1 Printer
- 3 N-Computing Kits
- 16 Tables and 30 Computer Chairs

Software provided to each Lab

- Microsoft Windows 2008 Server Std Edition (Licensed)
- Microsoft Windows Server 2008 Std client Access (Licensed)
- Windows Terminal Services (CALs)
- Microsoft Office 2007 Professional (MS Word, MS Outlook, MS Excel, MS Access and MS PowerPoint, etc) (Licensed)
- Microsoft Forefront Client Security Antivirus, (Licensed)
- Media Kits for each Lab (MS Windows 2008 Server, Office 2007 Pro , MS Forefront (Antivirus) and N-Computing V-Space Software)

(Punjab IT Labs Project, Govt. of Punjab, 2009).

It was observed that there is no large screen to project PC for IT teacher while delivering lecture. For these purposes High Definition Televisions (HDTVs) are so popular. The first personal computers used TVs for monitors, but computer graphics technology quickly outpaced the image quality on Standard-definition Televisions (SDTVs). A computer monitor can display more individual pixels than an SDTV. There are a number of options to use large screen to project PC in IT labs (Howstuffworks, 2011). The use of any large screen to project PC will allow the teachers to provide the colorful and visual content of the lectures to the students in the classroom at once. Moreover, the equipment helps the students to avoid crowd around a personal computer (PC) and one entire screen could be viewed by the whole class without any difficulty. For example, a teacher in a language class can provide broader insight of the reading assignment by connecting to author's website, in math class the students can learn how to work with spreadsheets and use charts and graphs, and a science teacher can present the dissection of a frog to the whole class at the same time. In case of computer lab, the screen or the over-head projector can make it possible for the teacher to demonstrate any new

software application (Helen, 2008). The purpose of the present study was to identify the difficulties of IT teacher to deliver lecturers without large screen to project PC.

PURPOSE OF THE STUDY

The researchers personally visited the computer labs of government high schools and examined physical conditions of the labs. Discussion with IT teachers, a number of problems came in list and one of them was large screen to project PC. The purpose of the study was to identify the need and importance of large screen to project PC to help the students and teachers.

RESEARCHM METHODOLOGY

Population

All IT teachers of each sex of government high schools of District Multan (Punjab Province) were treated as population of the study. District is the further subdivision of four provinces of Pakistan

Samples and Sample Size

Thirty (30) male and 30 female IT teachers of government high schools of District Multan (Punjab Province) were treated as sample of the study.

Development of the Tool

A questionnaire was developed for the collection of data. Expert opinions were asked to improve and finalized the data collection instrument. Questionnaire was consisting of two parts

- a. The five (5) items were developed keeping in view the need and importance of large screen to project PC. The questionnaire was designed on the basis of 5-point Likert's scale. Every statement was divided into five grades.

SA	Strongly Agree
A	Agree
U	Undecided
D	Disagree
SDA	Strongly Disagree

The weight- age of these grades is explained as under:

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

There was no negative statement in the questionnaire.

- b. In this part, IT teachers were asked to enlist the difficulties while delivering lecturers without large screen to project PC.

a. Questionnaire						
Sr. No.	Statement	SA	A	U	DA	SD A
1	Large screen is provided for the instructor to project PC for students to see the content of lecturer.					
2	I feel difficulty to deliver lecture without large screen to project PC.					
3	It is difficult to clear the concepts of students without large screen to project PC.					
4	It is long time taking to clear the concepts of students without large screen to project PC.					
5	I recommend large screen to project PC to improve the quality of teaching.					
b. Enlist the difficulties while delivering lecturers without rear projected television.						

Data Collection

The researcher administrated and collected the questionnaire personally. Total 60 questionnaires were distributed among 30 male IT teachers and 30 female IT teachers of government high schools of Multan.

Scoring Procedure

Each questionnaire comprising of five options with maximum 5 and minimum one mark, the respondents ticked the box according to their choice. The questionnaires so received were tabulated separately. These were marked as per predetermined procedure. The scores were tabulated for convenient statistical treatment.

Statistical Analysis

The researcher recorded the results on a master sheet and then these were tabulated. To distinguish the impact, the responses from the teachers, percentage and Mean, served as statistical appliances to reach to some concrete conclusion. To obtain mean score for each statement, the following formula was applied:

$$\text{Mean Score} = \frac{\text{FSA} \times 5 + \text{FA} \times 4 + \text{FUD} \times 3 + \text{FDA} \times 2 + \text{FSDA} \times 1}{\text{total Nos.}} = N$$

Where

- SA = Frequency of the respondents who strongly agreed to the statement.
 A = Frequency of the respondents who agreed to the statement.
 UD = Frequency of the respondents who remained undecided to the statement
 DA = Frequency of the respondents who disagreed to the statement.
 SD = Frequency of the respondents who strongly disagreed to the statement.
 N = Total No. of respondents.

- For negative statements the order will be-reversed.
- As the norm for each statement is 3, the mean score more than 3.00 indicates approval or agreement to the statement, while a mean score less than 3.00 shows the disapproval or disagreement to the statement.

a. Questionnaire N = 60		
Sr. No.	Statement	Mean
1	Large screen is provided for the instructor to project PC for students to see the content of lecturer.	SA = 60 Mean = 5.0
2	I feel difficulty to deliver lecture without large screen to project PC.	SA = 32, A = 10, U = 03, DA = 15 Mean = 3.9
3	It is difficulty to clear the concepts of students without large screen to project PC.	SA = 15, A = 22, U = 02, DA = 8 SDA = 03 Mean = 3.1
4	It is long time taking to clear the concepts of students without large screen to project PC.	SA = 18, A = 23, U = 01, DA = 06 SDA = 02 Mean = 3.3
5	I recommend large screen to project PC to improve the quality of teaching.	SA = 29, A = 17, U = 02, DA = 02 Mean = 3.7

FINDINGS & CONCLUSIONS

a. Questionnaire

1. All IT teachers are strongly agreed that large screen must be provided for the instructor to project PC for students to see the content of lecturer.
2. A large number of IT teacher feel difficulty to deliver lecture without large screen to project PC.
3. IT teachers are agreed upon that they feel difficulty to clear the concepts of students without large screen to project PC.
4. IT teachers are agreed upon that it is long time taking to clear the concepts of students without large screen to project PC.
5. A large number of IT teachers recommend the large screen to project PC to improve the quality of teaching.

b. Difficulties while delivering lectures

Summary of the list of difficulties while delivering lectures large screen to project PC by IT teachers is given.

Without use of any large screen to project PC, it is very difficult to provide visual content of the lectures to the students in the classroom at once and it is reason of crowd around a personal computer (PC) and one entire screen could not be viewed by the whole class. IT teachers feel difficulty to deliver lecture and feel difficulty to clear the concepts of students without large screen to project PC. It is long time taking to clear the concepts of students without large screen to project PC and class management is very difficult for IT teachers.

SUGGESTIONS & RECOMMENDATIONS

To improve the quality of teaching and to support the teachers during the lectures, it is highly recommend the use of large screen to project PC in computer labs of secondary schools of Punjab province.

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