USING LAPTOP AT UNIVERSITY LEVEL- A SURVEY-BASED APPROACH

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Abstract, A survey-based research has been conducted to reveal the impacts of using laptops at the university level. For this research BS Mathematics and BS Physics students both morning and evening session of Universities in South Punjab, Pakistan were taken as a population. The population consists of 240 students and 10 teachers of four Universities of South Punjab. The sample of 112 students and10 teachers was taken by Random sampling technique. Questionnaires and interviews were used as a research tool. The results of the study revealed that most of the students used the laptops for study purpose like making assignments on Microsoft word and presentations on the Power Point. The results of teacher's questionnaires revealed that most of the teachers used laptops for the preparation of lecturer and for different academic activities.

Key Words: *Computer Laptops, Teachers, Students, Survey-Based research, Universities*

I. INTRODUCTION

The education develops and cultivates a nation and builds up structure for all the improvements in society (Hafeez et al., 2020). Countries with good education systems do better on indicators of human development such as health status, maternal and infant mortality, lower population growth and reduced crime (Glewwe, 2013). It is very important to adopt the technology-based education for the development of the nation according to the globe. Many researchers including (Weaver & Nilson, 2005; Saira et al., 2021) proposed that as the number of students and universities are increasing, the demand for laptop is also increasing in students as well as teachers. In present era the application of information technology has been increased. So, the laptops have become necessary for the students and teachers in the university for better outcomes. Now the laptops have become the necessary equipment for the university teachers and the students (Hafeez et al., 2020).   The variations produced by the information technology era have had a great influence on the institution of higher education. Now the scholars come to attend the classes with laptop computers that have access to the internet at any time during the class. These portable devices support scholars for active learning during the class and this environment is the substitution of the traditional learning creating active learning environment during the lecture and outside the class (Hafeez et al., 2020).

The usage of laptop computers lets students to be associated to the active learning means even when they are outside the

university. The application of laptop computers also provides the facility to the university teachers to deliver the knowledge meeting the requirement of the present information technology era. (Mifsud et al., 2013). The application of information technological tools during the lecture has positive impacts on the quality of learning, critical thinking and communication skills of the students. But there are also negative effects of using computer laptops during the class such as playing games, social media application, email browsing and surfing the websites that are not related to the lectures. (Gehlen-Baum & Weinberger, 2012). There are many scholars including (Sana et al., 2013) proposed that application of laptop computers during the class crate distractions for the students. There are also many studies including (Poirier & Feldman, 2004; Saunders & Klemming, 2003) which show the positive impact of using laptop during the class. The objectives of the present research are to check the impacts of using laptops provided by the Ministry of Education, Government of Pakistan on the students and teachers during classroom and outside the classroom.

II. REVIEW OF LITERATURE

The Laptop computers have the ability to improve the quality of education. Laptop computers allow scholars to gain knowledge about the educational software's, make their own lecture notes by surfing educational websites, complete their project accurate and more quickly, immediately access to the educational resources and systematic way of learning. (Patterson & Patterson, 2017). Numerous current developments highlighted why considering the impacts of laptop computer applications for students learning outcomes is fetching progressively important. The application of computer laptops during the classroom has increased dramatically in present era. In 2011, (Parker et al., 2011) reported that 58% of fresh university graduates used mobile laptops, tablets and smartphones during the lecture. Carter et al., (2017) concluded in a study that find that 86% of students use computer laptops during the class. Bovee & Thill, (2014) stated that how information technological tools can waste time if not used properly. Patterson & Patterson, (2016) instrumented for computer usage in classes that allow laptops with the laptop policies from students' other classes during the day and find that computer usage reduces academic performance among undergraduate students at a private liberal arts college. Driver, (2002) concluded in a research that laptop computers, attached with web-based learning activities, improved engagement and critical thinking skills during and outside the class. Skolnik & Puzo, (2008)

conducted a Survey-Based research on university students and faculty members to highlight the advantages of computer laptops during the classroom lectures. The research indicated the positive impacts of computer laptops on the students critical thinking skills and communicative skills. The application of laptops by faculty members increased their presentation skills and also the source information.

Samson, (2010) proposed a surveyed on the students of the university who were given the options to use the lecture tools during larger classes. The results of the survey showed that by the direction of the faculty members on the application of computer laptops during the class, students can achieve great engagement and attentiveness. Kraushaar & Novak, (2019) concluded that students engaged in important multitasking performance with their computer laptops. Barak et al., (2006) proposed that computer laptops used in a Wi-Fi lecture room enriched active learning and stimulated more significant communications between learners and with the lecturer in large classes. Grace-Martin & Gay, (2001) conducted a research to check the effects of web browsing during the classroom and outside the classroom. The research indicated that length of web browsing had a negative impact on the academic achievement of the students.

Hembrooke & Gay (2003) observed the influences of multitasking learning and found that students Web browsing during the class directed towards 10% decrement in the grades in the final examination. Carter et al., (2017) conducted a research to check the impacts of laptops application during the class. The results of the study indicated that the students who used laptops during the class have performed badly by 0.3 standard deviations than the student who did not use laptops.

III. RESEARCH METHODOLOGY

Research Design and Data Collection

The survey-based approach has been used in this study. The BS Mathematics and BS Physics students both morning and evening session of Universities of South Punjab, Pakistan were taken as a population. The population consist of 240 students and 10 teachers of four Universities of South Punjab. The sample of 112 students and 10 teachers was taken by Random sampling technique. Questionnaires and interviews were used as a research tool. The instruments used to collect data were structured schedules. The questions were structured to allow a greater depth of response and only long enough to get essential data from her responses in the face-to-face interview. A structured paper pencil questionnaire was prepared for

students and teachers. The data is collected by survey method. The collected data was then analyzed by frequency and percentage formula.

IV. RESULTS AND DISCUSSION

Analysis of Teacher's Questionnaires

The results of teacher's questionnaires have been illustrated in the table.1. The table shows that 30% teachers utilize laptop for preparing their lectures 2 times in a week, 20% 3 times in a week, 40% teachers utilize 4 times in a week and only 10% every day. The 50% teachers responded that they use laptop for conducting research that contributes to lesson plans 2 times a week, 30% teachers 3 times a week, 10% teachers 5 times a week and 10% teachers every day. For the improvement of education materials, 60% teachers answered 2 times in a week, 30% teachers 3 times in a week and 10% teachers responded that they never use laptop fir the development of educational materials. For the questionnaire about power point application for educational purpose, 30% teachers responded that they use power point 2 times in a week, 50% teachers responded 3 times in a week and 20% times a week. To the response of question about making and managing websites for educational purpose, 20% teachers responded that they use websites for educational purpose 2 times in

a week, 30% teachers 3 times in a week, 40% teachers 4 times in a week and 10% teachers never use the websites. To provide the responses of teachers about the question to provide instructions in the classroom, 50% teachers said that they use laptops 2 times in a week to give the instructions in the class, 30% teachers 3 times in a week, 20% teachers 1 time in a week and 10% teachers said that they use laptops every day in the classroom to provide instructions to the learners. In response of the questionnaire about management of student data, 60% teachers responded that they use laptops for the management of the student date 2 times in a week, 20% responded 2 times in a week. 10% teachers 1 time in a week and 10% teachers responded that they utilize the laptops every day for the management of the student data. In responses to the last question about the utilization of laptop for communication with parents and students, 60% teachers said that they never use laptops for communication purpose, 30% teachers 3 times in a week and 10% teachers 1 time in a week.

ANALYSIS OF STUDENTS QUESTIONNAIRES

The results of student's questionnaires have been illustrated in the table.2. For the questionnaire that Laptop is working well provided by the GOVT of Pakistan, 47%

students agreed about that statement. Internet and laptop is used by my teachers in class room, 41% students agree about this statement. At university I used laptop and internet, 52% students strongly agreed to this statement. The laptop and internet at my university are utilized to improve what I realize; 39% students respond is below the average and oppose this statement. Laptop and internet is used by my teachers is interesting 49% students strongly agreed to this statement. Because I use laptop in my class so that I am better student, 50% students strongly agreed to this statement. 57% students responded that they are expert in basic computer use. How good are

Table.1: Analysis of Teacher's Questionnaires

Item No.	Statement	Level	Frequency	Percentage
1	You use laptop for preparing your lecture	Never	0	0
		2 time in week	3	30
		3 time in week	2	20
		4 times in week	4	40
		Every day	1	10
2	Conducting research that contributes to lesson plans	Never	0	0
		2 time in week	5	50
		3 time in week	3	30
		5 times in week	1	10
		Every day	1	10
3	For the improvement of education materials (lesson notes, tests, etc.)	Never	1	10
		2 time in week	6	60
		3 time in week	3	30
		5 times in week	0	0
		Every day	0	0
4	For educational purpose using power point	Never	0	0
		2 time in week	3	30
		3 time in week	5	50
		5 times in week	2	20
		Every day	0	0
5	Making and managing websites for educational purpose	Never	1	10
		2 time in week	2	20
		3 time in week	3	30
		4 times in week	4	40
		Every day	0	0
6	To provide instructions in the classroom	Never	0	0
		2 time in week	5	50
		3 time in week	3	30
		4 times in week	2	20
		Every day	1	10
7	To Manage student data	Never	0	0
		2 time in week	6	60
		3 time in week	2	20
		4 times in week	1	10
		Every day	1	10
8	To communicate with parents and students	Never	6	60
		2 time in week	3	30
		3 time in week	1	10

	4 times in week	0	0
	Every day	0	0

you at using the Internet to communicate with your friends? 60% students responded expert about that statement. For doing your assignments how are you good in using Microsoft word? The 39% students responded "average" about that statement. To finding websites on internet how good are you to carry out research? 39% responds "advanced" about that statement

Table.2: Analysis of Students Questionnaires

Item No.	Statement	Level	Frequency	Percentage
1	Laptop is working well provided by the GOVT.	Strongly Agree	35	31
		Agree	53	47
		neutral	15	13
		disagree	9	8
		Strongly disagree	00	00
2	Internet and laptop is used by my teachers in class room	Strongly Agree	34	30
		Agree	46	41
		Neutral	23	20
		Below average	9	8
		disagree	00	00
3	At university I used laptop and internet	Strongly Agree	52	46
		Agree	34	30
		Neutral	13	11
		Below average	13	11
		disagree	00	00
4	The laptop and internet at my university are utilized to improve what I realize	Strongly Agree	13	11
		Agree	24	21
		Neutral	31	27
		Below average	44	39
		disagree	00	00
5	Laptop and internet is used by my teachers is interesting	Strongly Agree	55	49
		Agree	41	36
		Neutral	11	09
		Below average	5	04
		disagree	00	00
6	Because I use laptop in my class so that I am better student	Strongly Agree	56	50
		Agree	37	33
		Neutral	13	11
		Below average	06	05
		Disagree	00	00
7	Basic computer use	Expert	64	57
		Advance	23	20
		Average	11	09
		Below Average	12	10
		Beginner	02	01

		Expert	**68**	**60**
8	**How good are you at using the Internet to communicate with your friends?**	Advance	22	19
		Average	11	09
		Below Average	06	05
		Beginner	05	04
		Expert	21	18
9	For doing your assignments how are you good in using Microsoft word	Advance	27	24
		Average	44	39
		Below Average	12	10
		Beginner	00	00
		Expert	28	25
10	To finding websites on internet how good are you to carry out research	Advance	44	39
		Average	26	23
		Below Average	09	08
		Beginner	05	04

V. CONCLUSION

A survey-based research has been conducted to find the effects of laptop on the teachers and the students. The results of the study indicate that most of the teachers and the students use laptop for the study purpose. The teachers use the laptops for the preparation of their lectures, for student's class notes and for the purpose of the communication. The students use the laptops for the purpose of making assignments on the Microsoft word document and for their lecture's preparation.

Conflict of Interest

The authors declare no conflict of interest.

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