Study of the Impact of Online Education on Student's learning at University Level in Pakistan

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Abstract

Online communication. The objective of this study was to explore the impact of online education and to analyze the online education on students' academic learning. The study helps both the students and teachers to know the impact of online education on students' learning. 300 students from Virtual University of twin cities of Pakistan were selected as a targeted population and 90 students selected as a sample size by using the simple random technique. The close-ended questionnaire was used for data collection. The link of online education with computer literacy, creativity among students, motivation of students towards learning, and performance of students was evaluated by the manual method. Results suggested that some major efforts must be made to continue to improve online technology that fosters dynamic learning opportunities for students through online education. It is recommended to have better distance learning environment or first-class online classrooms that can sense a learner's motivation level and respond adaptively.

Keywords: online education, online technology, students' learning, effectiveness, motivation.

Introduction

Instruction is concerned about the improvement of the entire individual. It includes individual picking up information, abilities, states of mind, and qualities that will be a piece of their life. It makes an individual socialized, refined, civilized and knowledgeable.

Learning is the way toward moving from ignorance to mindfulness by knowing things with specific numbers and figures. There are a few manners by which one can, for the most part, characterize and construct learning. It could be attributed to bringing something new into one's awareness or getting the current information to brighten by everyday and specific observations and experiences. With reference to the mental effects of learning it could be inferred that learning brings out specific changes in human conduct and contrarily human activity in a specific situation brings out learning too. At whatever point this wonder of learning happens, there happens an adjustment in a neurological arrangement of the objective. An analyst of the neurological and mental establishments of learning instrument needs to experience the clashing circumstances of these progressions identified with learning (Rosenberg, 2001). Online learning is emerging as a potential tool to transact and exchange information and learning material anywhere, anytime on demand. It is what, the delivery of content via all electronic media, including the internet, intranets, satellite broadcast, audio/video tape, interactive Television, and CD-Rom. (Urdan&weggen, 2000).

The Sloan Consortium, an association that reports every year on the state of web-based learning in the United States, distributed its 6th yearly report in November 2008. This examination split the institutionalcourse into four sorts: traditional, web-facilitated, blended or hybrid, and online.

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Traditional means face-to-face interaction between teacher and students. Teachers delivered content orally or in words and engage students while delivering content. In this type of education, both teacher and students are physically present in the classrooms.

In Web-facilitated instructional courses, 1% to 29% content is delivered through online instructions. In this course the instructional material, syllabus and assignment post on the web pages or the course management system.

Blended means a combination of traditional and online instructional delivery of content. Blended is also referred to as hybrid learning and is cautiously planned to use a modified instructional strategy that leverages the strengths of each student.

Allen and Seaman (2014) stated that in online classes, students engage with teachers and institute through online system.80% the course is delivered through the online system like video conferences, chat, workshops etc.

Online training emerged in the 20th century as corporate training whilst in the mid-1990's software developers changed the mode of online communication to instructional programs like Web-CT, Mallard, and Pioneer for students. As the technology advances the higher education institutes start using web-based learning in their curricula and developed complete online courses to facilitate on-campus and distance learning programs (Allen & Seaman, 2014).

According to Stewart, et.al (2010) online education was promoted by using postal systems that send written material to students and teachers. Majority of people took advantage of online education especially physically disabled, women who cannot participate as a regular student in institutions, the one who is engaged in jobs and those who live in remote areas. As Singh (2014) explained that today youth is described as tech-savvy and internet generation who has all to do with internet and web. With the advent and usage of internet in daily lives.

An ongoing report on Cyber students by Navarro and Shoemaker (2009) found that computerized talk addresses in view of Compact Disk Read-Only Memory (CD-ROM), electronic testing, electronic notice sheets and online exchange seemed, by all accounts, to be more successful and eye-catching than conventional methods for educating, the imparting of learning material through electronic medium, including the web, intranets, satellite communicate, sound/videotape, Television (Urdan&weggen, 2000).

Open and Distance Learning (ODL) is an adaptable, not bound you in time and age, space or area free, however, technology bound. This marvel is seen everywhere throughout the world including instructor training. In Pakistan, AllamaIqbal Open University, Virtual University, Sarhad University and now some Dual Mode Universities, for example, University of Peshawar, Gomal University and so forth are contending to give training through distance mode (Khan).

Literature review

Volery& Lord (2000) described that the Web is a noteworthy innovative headway reshaping our general public as well as institutes around the world. In light of this, institutes need to exploit the Internet for educating, and one dynamic improvement of this is the utilization of online strategies and techniques. According to Livingston &Condie (2006), the most important thing is choices given to students for selecting a better way of understanding in both styles and practicalities. With the help of online materials, students pointed out the sides which they felt to better understand and revise while sitting at home. Adding to that it provides everlasting chances of experiencing various methods of knowledge and learning (Johnson & Berge, 2012). USA, Taiwan and many other countries make compulsory to the college students to pick up at least one

computer course in their study to enhance their abilities in computing projects (Tsai, 2013). Online instructions improve the processing abilities and self – coordinated learning. Today's reality it is vital for each person to utilize PC as a part of their regular life that is the reason each individual needs to learn fundamental registering aptitudes which can be acquired from online training. Online training can be an extremely valuable device to learn processing abilities. (Zhang & Espinoza, 1998). The Importance of Online education is undeniable as everyone has gone through the busy schedule, including students and that's why they prefer online courses in order to be self-directed in learning while managing their time. According to Lieberman & Linn (1991), there is most likely that online training isn't just adaptable yet additionally a viable approach towards acquisition, however, it demands a self-needy and self-began learners. Presently online instruction is an extremely dynamic and a simple method for teaching-learning process yet to get prevailing in online training students must be self-controlled. There is Lack of close and personal cooperation in web-based learning and chances for self-bearing make it difficult to ensure students improve abilities in spite of constructive outcomes for aptitude improvement.

Performance

Strommen& Lincoln (1992) expressed that the amount of level of success or ability attained in academic work is referred to as achievement/performance. Oye, et.al (2012) clarified that E-learning expands the instructive execution among learners. Because of the fast development of web advancements, E-learning has turned into a logically well-known approach in higher instructive establishments. The study led by Davies and Graff (2005) inspected the connection between students utilizing e-learning and their educational execution. researches on online education and academic learning suggested that interaction with online education increases student-centered learning, promotes students' participation, and creates and facilitates more in-depth, logical and interactive discussion forums in place of outdated face-to-face discussion programs.

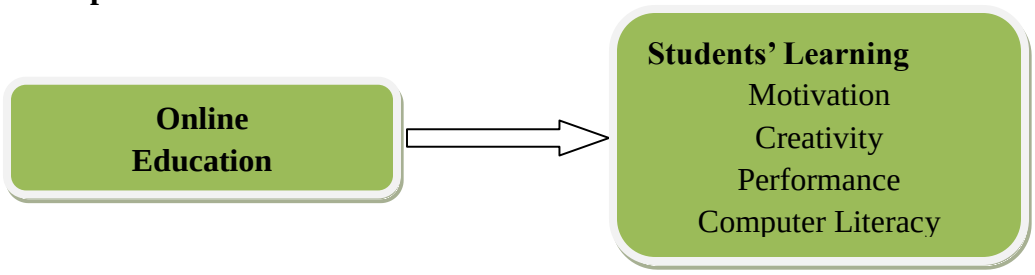
Motivation

What are the variables that motivate the individuals to get an online instruction than offline training? The response to this inquiry demonstrates the ability of learners and there are numerous purposes for this inspiration like adjusting and making learners autonomous. Personal computers assist individuals to involve or polish their individualized learning skills (Lens, 1994). The best inspiration for online training is that it connects with everybody from the world who can approach to this innovation or technology. The other advantage of online instruction is to learn time administration aptitudes by adjusting work and different tasks. While doing the web courses, the majority of the learners are able for dealing with their school work and additionally their web exercises. They deal with their chance as for their work (Sidman, Fiala&D'Abundo, 2011). The researchers Chang, et.al (2014) said that It is also an easy way for a teacher to teach a student because it covers time and distance. Students encouraged into a competition with other students. This competition increases the level of motivation among students. Students who have more knowledge of internet can perform better than those who have less knowledge. Online education is helpful during the time of exams. Student increases their knowledge by interacting with different scholars, teachers, philosopher. Students clear their concepts in which they have difficulties. Students become self-sufficient to achieve a success.

Creativity

Eisenberger&Shanock (2003) proposed that online educators are essentially in charge of incorporating creativity into their online educational program. Online educators need to expect the part of a facilitator instead of a teacher. Mintu-Wimsatt, et.al, (2007) also said that this can be finished by difficult understudies' current expertise sets; Giving all around characterized goals; Gathering understudies into groups with different backgrounds; Giving consolation and opportune feedback; Making inquiries that energize inventive thinking. As Beldarrain (2006) expressed that today there is a number of media of instructional innovation. These were a period when the online instruction was considered of low quality, yet time may come when individuals may favor online training modes for creating wanted skills. We today feel that both channels i.e. formal training and E-learning are the great sources of learning. Dr. Panneer (2000) said that developments in innovations that can be used to enhance, and support learning and inventiveness has been extensively quicker. Urdan and Weggen (2000) expressed that the present learning ventures ask for the power of development to overcome the limitations of time, detachment, and resources. This is uncommonly understood that people having different learning styles; learn about different courses and in particular circumstances. To keep pace with such assortments, E-learning is ascending as a potential device to execute and exchange information and learning material at any place or any time.

Conceptual Framework



Objectives of the study

1. To investigate the impact of online education on student's learning
2. To analyze the ways students utilize online education for learning purposes

Research questions

1. How online education increase student's learning?
2. How the Participation in the online classroom easier than the traditional classroom?
3. How youth/ students are utilizing online education?
4. What are the other factors that have an influence on students learning other than online education?

Research Methodology

The main purpose of this research was to study the impact of online education onstudents' learning at the university level. The study was descriptive in nature**.** The population of this study has consisted of 300 students of virtual university of Islamabad, Rawalpindi campus. Simple random sampling technique was used, and 30 % students were randomly selected as a sample size which was 90 students. Keeping in view the resources in term of time and money available

with researcher the following sample was taken from two different campuses of the virtual university.

Table No. 1: *Population and Sample of the study*

Virtual University	Population	Sample
Islamabad Campus	200	60
Rawalpindi Campus	100	30
Total	300	90
Percentage	-	30%

Firstly, researcher selected the 300 students from virtual university by using the simple random sample and then divide the 300 students into two strata and by using the simple random sampling researcher select the same percentage that was 30% of students' from each strata as a sample size and this is also proportional stratified random sampling when we take the same percentage from each group.

After going through the relevant literature, the close-ended questionnaire was developed for the students of Virtual University at the master's level. The five-point Likert scale was utilized to accumulate the information. 25 items were developed for the questionnaire. A pilot study, on 30 respondents, selected conveniently from general audiences, was conducted to check the reliability of the instrument. After incorporating the changes as per pilot study results, the items were examined in SPSS for reliability. The overall Cronbach's alpha (α) reliability value for the scale was .932 for 25 items. Researchers personally visited the targeted population. Questionnaires were distributed to the students of Virtual University and they were requested to fill out the questionnaire. The collected data were in quantitative form and it was analyzed through SPSS (15.0). Frequencies and percentages were drawn through SPSS. These statistical data were presented in tabular form. Percentages/ no of responses and scores are given for each percentage were shown in the table. The grand total of the percentage/ no. of responses were also indicated in the tables. All the items, in the questionnaire, were designated positive; so, items' responses were 'Strongly agree', 'Agree', 'Neutral', 'Disagree', 'Strongly disagree' respectively and the other items' responses were 'Fully', 'Much', 'Somehow', 'Very little', and 'Not at all'.

Analysis and interpretation of data

The researcher concentrates on the investigation and introduction of important information gathered from the examination. Since the investigation was quantitative in nature, along these lines frequencies and percentages were utilized by using descriptive statistical analysis through SPSS for examination of essential information. Keeping in view the objectivity of the investigation, the analyst has attempted to show the information without integrated her personal likes or dislikes.

Table No. 2: *Frequency Distribution of Demographics*

Gender	Frequency	Percentage (%)
Male	58	64%
Female	32	36%

Total		90	100
Qualification		**Frequency**	**Percentage (%)**
Masters		90	100%
Total		90	100
Study of online education in a week		**Frequency**	**Percentage (%)**
Less than 7 hours	34		38%
8-18 hours		40	44%
18+hours		16	18%
Total		90	100%
Grading of the final exam		**Frequency**	**Percentage (%)**
A		40	44%
B		36	40%
C		8	9%
F		6	7%
Total		90	100%

This table shows that majority of the students 64% were male while 36% were female students studying in virtual universities. 44% of students study online 8 to 18 hours a week. 38% of students study online less than 7 hours in a week and only 18% of students study online above 18 hours in a week. 44% of students got A grade in their final exams.40% students got B grade while 9% got C grade. It also shows that 7% of students did not clear their final exams and got F grade.

Table No. 2.1 : *Frequency Distribution and Percentages*

Independent study is helpful for students

Responses	**S. A**	**A**	**N**	**D.A**	**S.D.A**	**Total**
Frequency	10	54	13	8	6	90
Percentages	11%	60%	14%	9%	6%	100%
Online education develops an interest						
Frequency	31	44	8	0%	7	90
Percentage	34%	49%	9%	0%	8%	100%
Effect of the medium of instruction						
Frequency	31	45	10	2%	2	90
Percentage	34%	50%	11%	2%	2%	100%
E-learners can compete in this era						
Frequency	19	55	14	2	0%	90
Percentage	21%	61%	15%	2%	0	100%
Knowledge of computer hardware						
Frequency	22	37	23	5	3	90
Percentage	24%	41%	26%	6%	3%	100%
Knowledge about computer windows						
Frequency	32	32	11	9	6	90
Percentage	35.5%	35.5%	12%	10%	7%	100%
Knowledge of software						
Frequency	30	35	13	6	6	90
Percentage	33%	39%	14%	7%	7%	100%
The skill of web searching after e-lecture						

Frequency	33	37	13	4	3	90
Percentage	37%	41%	14%	4%	3%	100%
Knowledge of Microsoft Word						
Frequency	52	30	8	0	0	90
Percentage	58%	33%	9%	0	0	100%
Knowledge of Microsoft Excel						
Frequency	53	22	7	4	4	90
Percentage	59%	24%	8%	4%	4%	100%
Knowledge of Microsoft power point						
Frequency	51	27	6	4	2	90
Percentage	56%	30%	7%	4%	2%	100%
Student's involvement in e-lecture						
Scores	23	38	19	3	7	90
Percentage	25%	42%	21%	3%	8%	100%
Study of the topic before going to class						
Frequency	19	19	31	15	6	90
Percentage	21%	21%	34%	17%	7%	100%
Revision of lecture after e-class						
Frequency	22	25	27	8	8	90
Percentage	24%	28%	30%	9%	9%	100%
Online study enhances the talent						
Frequency	29	35	23	0	3	90
Percentage	32%	39%	25%	0	3%	100%
Get a good job after completion of online education						
Frequency	37	33	17	3	0	90
Percentage	41%	37%	19%	3%	0	100%
E-learning is better than formal learning						
Frequency	15	29	33	8	5	90
Percentage	17%	32%	37%	9%	5%	100%
Online education stimulate creativity						
Frequency	31	41	11	5	2	90
Percentage	34%	46%	12%	5%	2%	100%
Online study arises new queries about the topic						
Frequency	35	41	7	4	3	90
Percentage	39%	46%	8%	4%	3%	100%
Creating new ideas through online study						
Frequency	25	53	9	0	3	90
Percentage	28%	59%	10%	0	3%	100%
E-learner is different from others						
Frequency	35	35	13	3	4	90
Percentage	39%	39%	14%	3%	4%	100%
Understanding of online classes						
Frequency	27	47	10	3	3	90
Percentage	30%	52%	11%	3%	3%	100%
Enhancement of academic skills through online education						

Frequency	33	47	7	2	1	90
Percentage	37%	52%	8%	2%	1%	100%

Table No. 2.1 indicates that the majority 71% of students strongly agree that independent study in online education helps students to be more zealous. Only 16% students express their thinking that online education demands independent study and every student can't do an independent study; 83% of the students strongly agree that online education develops interest among students because in online education students have to do efforts by themselves. Only 8% of students said that online education does not develop interest because students get bored using computer and internet searching; 84% of the students express their feelings that the online medium of instruction is effective because it creates interest and motivation among students; 82% of the students said that e- learners can compete in this current competitive era because they also have abilities and capacities to face the challenges; 63% of the students got the computer literacy from online education because 70% of their work done by using computer; 68% of the students said that online education is based on online systems that are completed by using computers so they got the knowledge of computer through online education and only 17% students said that it is not necessary that they get know about computer windows through online education; 72% of the students express their feeling that online learning increased their knowledge about computer hardware and software; 78% of the students said that after studying online they get to know about the different skills especially web search the skills to vitally think their way through the searching and the web; 91% of the students fully agreed that to study online, students have to know about the basic skills and functions of the computer because their study and study material is computer based 83% of the students expressed their feeling that through online learning, students also get the skill of using Microsoft Excel. Few courses of online education require the use of Excel, so this way student should have the knowledge of Microsoft Excel; 86% of the students fully agreed with this point and some courses demand presentation software such as PowerPoint. They should and in need to be able to convert a document or an assignment in PowerPoint; 67% of the students get involved in the lecture while delivering the e-lecture. E-lecture is delivering via the internet thus the involvement of students in e-lecture is essential for e-learners.

Table No. 2.1 shows that 42% of students study before attending the E-class. A very small number of students' study before going to class; 52% revised their lecture after their online class. Revision of a lecture is a good step for students; in this way, their lecture retains in their mind; 51% were in favor that online study enhanced their talent and they became more motivated towards their education; 78% will get a good job after completion of online education. E-learners are motivated towards their study; 49% are in favor that e-learning is better than formal learning, as in online education students have chance of flexibility in their online study and as this is an independent study so students don't get disturbed by the other companions; 80% express their feelings that online education stimulate creativity among them. As in online education students work on computer and internet so their knowledge becomes improved and they become creative; 85% said that online education creating new queries about the topic. Majority students became able to think over their topics by themselves; 87% said that e-learning increase the creative attitude among them. They become creative in many aspects and they have a variety of styles for learning; 78% expressed that e-learners are different from the other learners because e-learners study online and there is no face to face interaction with the teacher or with the other students of the class, instead of all these they became good students and learn

by themselves; 82% understand the e-learning. Most of the students felt comfortable in understanding the topics and they easily understand their online study in online classes; 89% expressed that online education is better to polish academic skills because they are self-motivated towards their studies.

Summary

Online education is taking classes on the internet. Use of internet as a supplementary teaching tool has become increasingly popular among university professors. As a new medium of communication, the internet explains an important role in students learning.

The study aimed at investigating the impact of online education on students learning at the higher level in twin cities of Pakistan. The objectives of the study were: To investigate the impact of online education on student's learning and analyze the ways students utilize online education for learning purposes.

The study was delimited to the two campuses of the virtual university of Pakistan which were Islamabad and Rawalpindi. The population of the study was 300 students from the virtual university. 30% of students were randomly selected from the two campuses of virtual universities. The selected sample was consisting of 90 students from the virtual universities. The close-ended questionnaire was developed to collect the data from the students. The researcher personally administered the questionnaires in respective virtual universities.

The collected data was presented in tabular form. The data was analyzed to know the impact of online education on student's learning. The collected data were analyzed through SPSS and percentages and frequencies were used for analysis and interpretation of the collected data.

Conclusion

The present investigation was finished by leading a review through an independently employed survey. Because of time impediments and assets, the researcher conducts a survey study of 90 respondents. The larger part of the learners strongly agreed that from the online instruction they come to know about PC education and got fundamental abilities in utilizing the PC like the utilization of Microsoft Word, Excel and PowerPoint. They likewise got the expertise of Web looking on the grounds that online instruction relies upon the PC. Students finish their work on the PC and connect with the instructor through chat, video gatherings and so on. The investigation uncovers that most of the learners concurred that independent study helps in online instruction on the grounds that in online training students study on their own pace which creates inspiration among students and they feel more zealous towards their learning. The medium of direction in online instruction is advantageous and adaptable for learners. Students study online 8 to 18 hours in a week and got A and B grade in their final exams. Majority of the students said that after completion online degree they get a chance to acquire a good job or also get a chance to give online classes or become a good teacher to teach through an online system. Online education increases the creative attitude among them, thus among e-learners, creativity increased, and they have new ideas for their study and online medium of education stimulate creativity among them.

Recommendations

The following suggestions were made in the light of the findings and conclusions of the study. The study reveals that the current online educational methods are not enough to improve the academic skills, so it is recommended that some major efforts must be made to continue to

improve online technology that fosters dynamic learning opportunities for students through online education, for example, introduce mobile or ubiquitous learning mode of online education. The result of the study exposed that online education create curiosity towards computer learning among students and give essential skills of computer to students but to a very limited extent so it is advised that online education must continue to support students by providing additional learning opportunities that do have an impact on students' computer literacy performance (like web-based instructional modules). The study advocates that students are motivated to learn, so it is suggested to have better distance learning environment or first-class online classrooms that can enhance a learner's motivation level and respond adaptively. The results proposed that online education enhance students' creativity and ingenuity, so it is recommended that progressive online education environments at formal educational institutions may continue to facilitate the effective delivery of online instruction because well-designed Internet-based instructional models may continue to flourish students' thinking abilities and creativeness as they support problem-solving and allow students to think differently in a creative manner.

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