Innovative Teaching Learning Approaches to Distance Education: Measuring Students Learning Perceptions

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Abstract

This research study was designed to explore the teaching-learning approaches to distance education and measuring students' learning perceptions. Using the multi-stage sampling technique, eight hundred and two (802) students of the Master of Arts in a distance education university were taken using the universal sampling. Data were collected through a self-developed questionnaire. The validity and reliability were properly ensured. Descriptive statistics such as mean gained score and standard deviation were applied to analyze the data. The study found that thetime for solving home assignments was enough but the students were confused about the procedure to upload it on the learning management system (LMS).Online workshops were conducted by using the learning management system (LMS) but communication flaws were found in using (LMS) Aaghai portal. The students were quite satisfied with teaching-learning techniques, TV and radio programs, and the study material. It was also concluded that the students were not satisfied with the conduction of the online workshop through LMS due to unstable internet, no familiarization with LMS and the slow process of the Aaghai portal. It is recommended that the AIOU may provide proper guidelines through the conduction of training about the use of technology for assignments and workshops purposes.

Keywords: Distance education; teaching-learning approaches; modes of education; learning management system (LMS)

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Introduction

Iqbal (2014, p.394) argued that different factors are involved in the teaching-learning process. These factors are the age of the students, content nature, physical and learning resources and teaching methodologies. The age of the students plays a very important role in teaching and at an early age, students of primary classes learn better through learning by doing. The adults' learners learn by listening, discussion and lecture methods. The nature of content also a very important factor and is to consider suitable science subject demonstration or adopting a problem-solving approach instead of discussion, lecture method and questioning answer technique.

According to Popov (2003), the courses of distance education are linked with correspondence and privacy due to geographical isolation, social isolation and disadvantaged groups. The teacher and students' interaction takes place through the delivery of study material. There may be home assignments, face to face meetings at study centres, telephonic guidance and support, TV and radio programs guidance, video conferencing, web resources, projects and online workshops by using a learning management system (LMS).

The teaching-learning process cannot take place on an open ground. It needs concrete and abstract link among physical and human ingredients i.e. students and teacher interaction, using teaching-learning approaches and techniques and classroom resources. Generally, in the distance education system, the following components are considered necessary for teaching-learning approaches.

- Study material
- Home assignments
- Face to face tutorial meetings
- Telephonic guidance
- TV and radio programs
- Video conferencing
- Web resources and internet communication
- Online tutorial workshops
- Teaching methodologies

Literature Review

The literature review of the present research study considers the five aspects of distance education keeping in view the current practices adopted by Allama Iqbal Open University (AIOU) during the Covid-19

pandemic. These five aspects of distance education for this research study are as following:

- Teaching methodologies
- Study material/ books
- Home assignments
- TV and radio programs
- Online tutorial workshops through the learning management system (LMS)

Teaching Methodologies

The lecture method, discussion and question-answer method were used during pandemic covid-19 semester spring, 2020 by Allama Iqbal Open University. According to Paris (2014), the lecture method is used both in formal and distance education. It is the best approach for large classes. Through this method, the content is presented by the educators with a complete explanation. Lecture with audio and visual aids such as Slideshow, PPT, s and images are presented. Written boards are also used for more explanation. So in this way, the cognitive developments of the learners are developed and large content is presented in the shortest time. Wilkinson (2009) argued that the discussion method increases the students thinking skills and problem-solving approaches. In this method the learners are engaged in groups and through active participation, speaking and listening activities to influence one another through their behaviour. Gangel (2015) stated that the question and answer method give opportunities to the students to inquire about the information through questions. The student's behaviour explored through motivation and activeness and strengthens their learning process by linking previous knowledge with the new one. Moreover, this method develops thinking skills and analyzes the abilities of the learner.

Study Material/ Books

The study material for formal and distance education is not the same. In the distance education system, the students and tutors are not physically present at the same place of study. The students are needed to study and understand the study material with their self-approach. Keeping in view the geographical and social isolation, the study material for distance education is based on activities and self-explanatory approaches. The study material is the source provided to students in a set of instructions. The set of instructions are designed keeping in view the students learning objectives and quality of knowledge (Gijselaers, 2013).

The printed study material through open corresponding is made in which the printed material is delivered at the doorstep of the learners. This study material is designed on such lines that keeping in view the self-study, self-learning and self-pacing due to students geographical and social isolation from educational institutions. There are fewer opportunities for face to face interaction among students and teachers. So the study material has to be sufficient support. The study material of distance education consists of about 40%   on supportive devices (Martin, et.al, 1996, p.77).

Home Assignments

The home assignments are the necessary portion of the activities of Allama Iqbal Open University. The assignments approach is used to strengthen the study and assess the strengths and weaknesses of the study. Through the assignments and project approach, the students discuss the study problems and issues with their part-time tutors and tutors effectively guide the students. By adopting the home assignments and projects, the insight develops in the students by linking the knowledge and existing situation. So in this way, the students gain experiences and develop the capabilities of critical thinking and problem solving (Portyanskaya, 2009, p.133).

TV and Radio Programs

According to Karim, et.al (2001, p.153) radio is used worldwide as a teaching-learning approach widely in far-flung areas for distance education. The radio is a particularly very useful approach in distance education where personal contacts are impossible with the combination of other media. So radio is the cheapest and convenient approach to provide distance education to the various sectors of the population.

Rashid and Rashid (2010, p.178) stated that television is another effective teaching-learning approach to impart knowledge. Television is a complex medium to some extent due to the audio-visual process that requires the learners to cover the relevant material with the pace of this medium. So it is a very powerful medium of teaching-learning approaches in distance education. The quality and efficiency in lecture delivery also play a very important role to improve learning. The Allama Iqbal Open University as the institution of distance education heavily

depends on the varieties of available media including radio and television. AIOU is transmitting on air its educational material on PTV-2 through satellite to more than 45 countries.

Online Tutorial Workshops Through the Learning Management System (LMS)

According to Bukhari (1997, p.2), the tutorial workshops guide and support the students about the instructional and study material concern problems. The role of the tutor creates links between the institution and the learner. The students and tutor exchange views about the academic challenges and facing problems in understanding the study material during workshops. It is an open way of exchanging ideas, experiences and strategies about learning. So it the need of the hour to train the part-time tutor of Allama Iqbal Open University (AIOU) according to shifting needs of the present era and distance education. The tutor can play a significant role in this respect. Akhter and Akbar (2015) explored that tutor workshops mostly arranged ina formal education institutions building but due to the Covid-19 pandemic, this paradigm changed from face to face tutorial workshops to online workshops conducted by Allama Iqbal Open University (AIOU) in semester spring, 2020. Generally, the tutorial workshops are conducted in the afternoon in the formal education institutional buildings but the online workshops by using the learning management technology (LMS) were conducted in the evening from 6:45pm to 8:15 pm. So the university shifted from face to face paradigm to online technology, learning management system (LMS).

Research Objectives
The main objectives of the study were:
1. To find out the innovative teaching-learning approaches to distance education in the context of students learning perceptions.
2. To explore the students' perceptions in the context of the effectiveness of teaching-learning approaches to distance education.

Research Questions
1. Are innovative teaching-learning approaches to distance education are helpful for students learning?

2. Do the teaching-learning approaches to distance education are effective for students learning?

Methodology

The quantitative research design was adopted as the current study measured the students learning perceptions. A survey method was adopted to carry out the study. Schwab (1999) stated that it is comparatively simple research. Gay (2005) points out that the survey is an attempt to collect data from the respondents, which are taken from the population concerning the variables used in the research. The current study was delimited to the students of Allama Iqbal Open University (AIOU) of the level of Master of Arts in (Education).as they were studying in semester spring, 2020.Using the multi-stage sampling technique, the province of Punjab was selected conveniently. In the next phase, five regions of Allama Iqbal Open University, Islamabad; Attock, Mianwali, Sargodha, Chakwal and Multan were selected from the province of Punjab randomly. Eight hundred and two (802) students of the Master of Arts in education were taken as a universal sample size for the study self-developed questionnaire based on a five-point Likert scale was used for the collection of data. The validity of the tool was ensured in the light of expert opinions. The Cronbach Alpha value of the instrument was 0.81.Descriptive statistics were applied to analyze the data such as mean gained score and standard deviation, presented the data in tabular form and interpreted accordingly.

Research Ethics

The researcher ensured the research ethics in the data collection process and also get the informed consent of the respondents to get their opinions. For this purpose, the researcher personally visited five regional offices such as Attock, Mianwali, Sargodha, Chakwal and Multan and get permission letters, students names and addresses from regional coordinators. The students were also informed to get their consent about the data collection, research purpose and research data confidentiality.

Data Analysis and Interpretation

The responses obtained from the questionnaire were presented in the form of tables.

Table 1
Students learning perceptions about teaching methodologies

Statement	Never	Rarely	Sometimes	Often	Always	Mean	SD
1. Teaching methodologies elaborated well learning material	20	35	24	478	245	3.83	0.94
2. Lectures and visual aids strengthen the conceptual learning	23	13	106	254	406	3.88	0.97
3. Teaching methods developed cognitive thinking skills	17	15	103	250	417	3.98	1.11
4. Teaching methods developed problem-solving and critical thinking	22	33	94	239	414	4.01	1.12

Table1 shows that the majority of the student's responses indicated that teaching methodologies such as lecture, discussion and question and answer method well elaborated the learning material (M= 3.83, SD= 0.94); the lectures and visual aids also strengthen the conceptual learning of the students (M= 3.88, SD= 0.97); teaching methods developed the cognitive thinking skills (M= 3.98, SD= 1.11); while the majority of the students indicated that the teaching methods developed the problem solving and critical thinking skills of the students (M= 4.01, SD= 1.12).

Table 2
Students learning perceptions about the study material

Statement	Never	Rarely	Sometimes	Often	Always	Mean	SD
1. Study material received on time	27	135	124	378	138	3.53	0.91
2. Study material was written by competent authority	23	103	106	164	406	3.68	0.87
3. Study material is based on student-centred	107	105	103	170	317	3.88	1.01
4. Study material has enough exercises on self-assessment	62	63	94	169	414	4.10	1.02

Table 2 depicts that the student's responses showed that the majority of the students received the study material on time (M=3.53, SD= 0.91);

the study material was written by the competent authority (M=3.68, SD=0.87); the study material is based on students centred activities (M=3.88, SD= 1.01); and most of the students agreed that the study material is enough exercises on self-assessment (M=4.10, SD=1.02).

Table 3
Students learning perceptions about home assignments

Statement	Never	Rarely	Sometimes	Often	Always	Mean	SD
1. Sufficient time was given for solving assignments	37	50	103	465	147	3.93	1.01
2. Tutor provided feedback and guidance	325	194	87	106	90	3.86	0.87
3. Guidelines were provided to upload assignments on LMS	308	159	240	59	36	3.92	0.80
4. Familiarization with LMS for uploading assignments	590	112	64	27	09	4.23	0.82

Table 3 indicates that most students responded that sufficient time was given from Allama Iqbal Open University (AIOU) for the solving of home assignments (M=3.93, SD=1.01); the feedback and guidance from the tutor was very low (M=3.86, SD=0.87); the majority of the students responded that the guidelines were not properly provided about the uploading of assignments (M=3.92, SD=0.80); while the student's majority was not familiar to use LMS for uploading of assignments earlier (M=4.23, SD=0.82).

Table 4
Students learning perceptions about TV and radio programs

Statement	Never	Rarely	Sometimes	Often	Always	Mean	SD
1. TV and radio programs were prepared and presented on time	20	39	28	231	484	4.88	0.92
2. TV and radio programs are effective medium of instructions	77	99	75	194	357	4.59	0.85
3. TV and radio programs were useful to understand the study material	80	53	100	241	328	4.83	0.86
4. TV and radio programs provided the self-activity and exercises opportunities	41	49	48	261	403	4.43	0.91

Table 4 shows that the students' responses showed responses in favour of TV and radio programs and replied that TV and radio programs were prepared and presented on time (M=4.88, SD=0.92); the majority of the students responded that TV and radio programs are an effective medium of instruction (M=4.59, SD=0.85); they were also useful in understanding the study material (M=4.83, SD=0.86) while TV and radio programs provided the self-activities and self exercises opportunities to the students (M=4.43, SD=0.91).

Table 5
Students learning perceptions about online tutorial workshops through the learning management system (LMS)

Statement	Never	Rarely	Sometimes	Often	Always	Mean	SD
1. Guidelines were provided to use LMS for workshops	340	96	188	92	86	4.13	1.08
2. Proper time was allocated for online workshops	25	37	177	470	93	4.94	1.02
3. Faced problems in using LMS	29	09	23	379	362	4.34	1.01
4. Students and resource person communication was up to the mark	103	239	204	153	103	4.16	1.92

Table 5 shows that the majority of the students responded that the guidelines were not properly provided to use the learning management system (LMS) for online workshops and they were also not familiar earlier with this system of technology (M=4.13, SD=1.08); the time allocated for online workshops was proper and enough (M=4.94, SD=1.02); the majority of the students faced problems in using learning management system (LMS) due to internet problems and also no familiarization with the technology (M=4.34, SD=1.01); and the students and interaction with resource person were also not up to the mark due to technological problems (M=4.16, SD=1.92).

Discussion
The current research study investigated the students learning perceptions about the teaching-learning approaches to distance education and found that majority of the students were satisfied with the teaching methodologies and study material and its material quality. It was also found that most students responded that time allocation for the solving of home assignments was enough but the majority of the students were

confused due to the non-provision of guidelines about the using process of learning management system (LMS) and they faced a lot of problems in uploading the assignments on LMS.

The study explored that lecture and discussion methods were adopted as techniques for learning management system (LMS) and the students were quite satisfied with its effectiveness. The resource person delivered their teaching lectures effectively, prepared them properly and share with the students on social media such as in WhatsApp groups. The resource persons involved the students in discussion, taking the queries of the students and feedback about the lectures. The students were quite satisfied with the lectures and discussion and also with the technique of addressing their queries. So the majority of the students were quite satisfied with the effectiveness of lecture and discussion techniques adopted by the resource persons through the learning management system (LMS).

The current study also revealed that TV and radio programs were prepared and presented at the proper time and the medium of the instructions of the TV and radio was very effective and useful. The students reported about the online workshops which were conducted through the Aaghai portal (LMS) were beneficial but proper guidelines were not provided to students about the use of learning management system (LMS) technology. The students were not familiar with this technology and they also faced many problems due to the internet, the slow process of LMS technology and poor interaction with resource persons.

Conclusions

The key aim of this research study was the measuring perceptions of students learning about the teaching-learning approaches to distance education adopted by Allama Iqbal Open University (AIOU) during the semester of spring, 2020. The study concluded that the current research study concluded that study material was received on time and based on self-assessment and learning activities. The students were unfamiliar with the use of learning management technology (LMS) and they faced a lot of confusion about the use of LMS. The students were quite satisfied with TV and radio programs but students faced a lot of issues in attending online workshops conducted on learning management system (LMS) due to internet issues, slow process of Aaghai portal, and log in and poor interaction with resource persons. The lecture and discussion techniques used by the resource persons and adopted for the learning

management system were found effective and the majority of the students were quite satisfied.

Based on conclusion, it is recommended that AIOU consider the student's opinions about the use of a learning management system for teaching-learning approaches because so many areas in Pakistan are still facing stable internet issues. It is also recommended that the AIOU may provide proper guidelines through the conduction of training about the use of technology for assignments and workshops purposes. The university ensures the proper interaction among students and tutors at study centres, feedback about assignments, quality interaction in online workshops and provides opportunities for learning through activities. It is recommended that the university may take the opinions of the students about the internet facilities and conduct the face to face workshops with SOPs where the net facilities are not available or the network is not working properly and also try to decrease the problems of the Aaghi portal with the help of ICT university experts.

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