Relationship among Distance Learner's Interactions and Success

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Abstract

In Pakistan, Allama Iqbal Open University (AIOU) and some other conventional universities are imparting higher education through distance learning system. These higher education institutions try to modernize their teaching process with the new trends and practices going on around the world to equip their students with latest content knowledge and research methodologies. Allama Iqbal Open University is Pakistan's pioneer university which laid the foundation of distance learning system for the first time when this concept was not much popular around the world, but AIOU has proven its worth and now its services are acknowledged all over the country. Learner to learner interaction, learner to instructor interaction and learner to content interaction are the characteristics of distance learning system of AIOU. Workshops are necessary component of distance learning mode where learner to learner and learner to instructor interaction occurs, experts from the relevant field share their experiences and guide learners to related content. This study investigated the degree to which learner to learner, learner to instructor and learner to content interaction contribute in success through distance mode.

The sample for the study was the students of M.S leading to Ph.D and M. Phil of Allama Iqbal Open University. A questionnaire was developed for collecting data from the sample students. Regression analysis was used to calculate the effect of learner to learner, learner to

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instructor and learner to content interaction on success of the students. It was found that success in distance learning system is positively correlated with the learner-instructor interaction while learner-learner interaction was the least predictor for success in distance learning.

Keywords: Trends, teaching methodologies, teaching process.

Introduction

Education molds a person into a responsible citizen that is why nations across the world try to educate its mass by all means. The concept of distance education was introduced to achieve the objective of educating the maximum people for playing positive role in their fields. With the passage of time, distance education gain popularity and currently it is providing force for all fields with the required skills and potential.

In Pakistan, Allama Iqbal Open University introduced distance education system for the first time when it was not much accepted around the world. Initially, there were many question marks on its teaching methodology and delivery but AIOU not only answer all the questions which were raised on its system but also provide distance learning models to other institutions. AIOU blended all the modern varieties to make its teaching learning system more reliable and authentic. Currently, AIOU's teaching learning system has potential to produce the force which has knowledge, skills and potential to work in the modern world.

No one can produce good results while working in isolation. For collective work and for knowing other people views and opinion over some certain point, interaction is necessary. Interaction helps to add some new knowledge in the existing knowledge to improve its current body. Interaction builds a sense of community among the students, which leads to student satisfaction, retention, and increased learning (Brown, 2001).

Interaction offers an opportunity to increase the capacity by mutual discussion with others. Literature provides three main kinds of interaction (i) learner - learner interaction (ii) learner - instructor interaction (iii) learner –content interaction. All these interactions work for the same cause to produce good results. AIOU know the importance of interactions and manage platforms to interact for the sake of solutions. AIOU provide the best available content to its clients and arranges

workshops and seminars for learner - learner interaction and learner - instructor interaction and provide technological support for learner-interface interaction. In workshops/seminars, learners of distance education meet with other learners and instructors, discuss their weak points and clarify the concepts while updated content provides the latest version of available knowledge to apply. Interactions affect the students' learning and reinforce the students to utilize all the learning of interactions for success in the examination.

Literature

Interaction is a way to see other learners, instructors, interface with technologies or content to learn new information and knowledge. Learners instructors, technologies and content work as sources of knowledge for learner.

Thurmond (2003) defined interaction as:
>…the learner's engagement with the course content, other learners, the instructor, and the technological medium used in the course. True interactions with other learners, the instructor, and the technology results in a reciprocal exchange of information. The exchange of information is intended to enhance knowledge development in the learning environment. Depending on the nature of the course content, the reciprocal exchange may be absent – such as in the case of paper printed content. Ultimately, the goal of interaction is to increase understanding of the course content or mastery of the defined goals (p. 4).

Generally, in distance education, learners remain away from each other and the importance of interaction increased. Interaction has been regarded as a key component of effective instruction in both traditional face-to-face and technology-mediated learning environments…. The importance of interaction increases within the context of distance learning since learners are physically separated from instructors and other learners (So, 2010). In distance education system, workshops/seminars are arranged to introduce learners with each other and with instructors to share academic knowledge and to get mastery over the course content.

Types of Interaction

Literature suggests the following three main types of interaction:
1. **Learner-to-Content Interaction**: This type of interaction results from students examining the course content and participating in class activities.
2. **Learner-to-Learner Interaction**: This type of interaction can take place between two students or between several students.
3. **Learner-to-Instructor Interaction**: This type of interaction is intended to reinforce student understanding of course materials and provide the student with feedback.
   (http://www.wpi.edu/Academics/ATC/Collaboratory/Teaching/interaction.html)

Hillman, Willis, and Gunawardena (1994) added a fourth type of interaction and called it as learner-interface interaction, the interaction of learners with technologies.

Kelsey and D'souza (n.d) conducted a case study and found that student-student interactions were not critical to the success of students and were the least important form of interaction for students. Collaborative group interaction can help in learning the course content and easing feelings of isolation (Thurmond and Wambach, n.d). Soo and Bonk (1998) conducted a study with eight experienced distance education instructors using Delphi Technique and found that teachers considered learner-learner interaction very important.

Learner-to-Instructor Interaction affects the learning process in different ways. In learner-instructor interaction, instructor share tips for effective learning provide feedback at the spot, guide students to look for some possible alternative ways for some problem which ultimately enhance the outcomes of the students. (n.d) conducted a study on Interaction issues in Malaysia.

Open Distance Learning (ODL) claims that interactivity when conducted properly by distance teachers increases the motivation of students to complete ODL courses. Instructors typically have a wealth of knowledge and insight into what makes instruction effective, awareness of the expectations and desires of their students can help improve the teaching and learning experiences for everyone (Dennen, Darabi and Smith, 2007).

Objective of the Study

The objective of the study was to investigate the degree to which learner to learner, learner to instructor and learner to content interaction contribute in success through distance learning mode.

Research Question

Which is the best predictor of success in distance learning system: learner-learner interaction, learner-instructor interaction or learner-content interaction?

Delimitation of the Study

The study was delimited to:
1. The department of Teacher Education
2. The students enrolled in M. S leading to Ph.D and M.Phil in spring 2008.

Sample of the Study

Through universal sampling technique, the students of M.S leading to Ph.D and M.Phil enrolled in spring 2008 were selected as sample for the study. The detail of the sample for the study is as under:

Table 1
Sample for the Study

Program	Male	Female	Total
M.S leading to Ph. D	13	9	22
M. Phil	25	30	55
Total Students			77

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Instrument of the Study

After reviewing the related literature, the researchers developed a questionnaire on five points Likert scale. The questionnaire was aimed to know the opinion of sample students about the effects of learner-to-

learner, learner-to-instructor and learner-to-content interaction on success. There were five statements for each aspect of the interaction.

Validation of the Instrument

For validation, the custom made questionnaire was presented to two academicians who were engaged in distance learning system for the last 10 years. The academicians were requested to check the statements in the light of objective of the study. Theme academicians suggest some changes in the statements which were made in the light of their suggestions.

Administration of the Instrument

The instrument was administered by the researchers and help from colleagues was also taken. A cover letter was attached with the questionnaire to explain the objective of the study. The participants were followed by mobile calls and messages and within available time, forty eight filled questionnaires were collected back.

Data Analysis

Multiple regression was run on the data to predict the influence of independent (Learner-learner interaction, learner-instructor interaction, learner-content interaction) variables on the dependent variable (success) in distance learning system. Enter method was considered best as this method accepts all the independent variable at the same time to predict.

Table 2
Descriptive Statistics

	Mean	Std. Deviation	N
Success	20.7292	1.34859	48
Learner to instructor	18.6042	2.63156	48
Learner to content	20.2083	2.35163	48
Learner to learner	19.7083	2.46644	48

Table 2 gives the mean score for each variable; Std. Deviation shows the spread of scores for each variable and N represents the number of participants.

Table 3
Correlations

		Success	Learner to instructor	Learner to content	Learner to learner
Pearson Correlation	Success	1.000	.383	.287	.161
	Learner to instructor	.383	1.000	.241	-.067
	Learner to content	.287	.241	1.000	-.242
	Learner to learner	.161	-.067	-.242	1.000
Sig. (1-tailed)	Success	.	.004	.024	.137
	Learner to instructor	.004	.	.050	.325
	Learner to content	.024	.050	.	.048
	Learner to learner	.137	.325	.048	.

Table 4
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.495[a]	.245	.193	1.21131

a.　Predictors: (Constant), Learner to learner, Learner to instructor, Learner to content.

The R value (.495) indicates the multiple correlation co efficient between all the entered independent and dependent variables. The R square value shows the amount of variance in the dependent variable that can be explained by the independent variable. Here the R square value is 0.245, this mean that this model explains 24 percent of the variance in success of distance learning.

Table 5
Anova

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.919	3	6.973	4.752	.006[a]
	Residual	64.560	44	1.467		
	Total	85.479	47			

a.   Predictors: (Constant), learner to learner, learner to instructor, learner to content

From table 5, the sig. value (0.006) is less than 0.05; it means that the predictors of the study are significantly better than would be expected by chance.

Table 6
Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	11.771	2.562		4.595	.000
	Learner to instructor	.172	.069	.336	2.486	.017
	Learner to content	.153	.080	.266	1.916	.062
	Learner to learner	.136	.074	.248	1.839	.073

a.   Dependent Variable: SUCCESS

The above table 2 shows the correlations among the variables of the study, it is clear that success in distance learning system is positively correlated with the learner-instructor interaction ($p < 0.01$).

The Standardized Coefficients Beta shows the contribution of each independent variable makes to the model. The beta value is the average amount of change that occurs in dependent variable due to some change in independent variable while all other independent variables are kept constant. Table 6, predicts that the largest influence on success in distance learning is the learner to instructor interaction and learner to content interaction is the second best predictor for success in distance learning system.

Conclusion

In distance learning system, interactions are equally important as in traditional learning system. Learner-learner, learner-instructor and learner-content interactions are the gradients of distance learning system. AIOU routes printed materials to its clients through post mail and arranges workshops where learners interact with peers and instructors. These interactions provide opportunities to discuss academic problems and share academic knowledge with peers while instructors explain the hidden aspects to the learners. Ultimately, the learning happens through interactions play a vital role in success. The study shows that learner-instructor interaction is the best predictor for success in distance learning system, matches with the finding of Ali and Ahmad (2011) who in a study about factors for students' satisfaction in distance learning of AIOU found that 58 % of variation in the dependent variable (student satisfaction) is caused by the independent variable student-instructor interaction. Learner-content interaction the next predictor that contributes for success in distance learning system, while learner-learner interaction was the least predictor of success in distance education as was found by Kelsey   and   D'   Souza   (available   at http://www.westga.edu/~distance/ojdla/summer72/kelsey72.html)   that Student-student interactions were not critical to the success of students and were least important form of interaction for students.

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