Demographic Diversity Affecting Teacher's Perceptions Related to Quality of Research Produced in Distance Education

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Abstract

Research was based on six objectives. The research was designed to compare the perceptions of the teachers related to quality of research on the basis of gender, sector, age, academic qualification, professional qualification and teaching experience. The research was based on descriptive- comparative style. All the higher level distance education institutions of Islamabad were considered as the population of the research. The researcher used the convenient sampling technique to draw the sample for the study. 66 teachers contributed in the data collection process among which 30 were from public and 36 were from private sector. To address the research variable (Quality of Research), a questionnaire was developed by the researcher in the light of theoretical parameters given by Obiageil crystal oluka, shaofa Nie,Yi sun (2014). Research quality assessment scale was divided into 7 sub sections (Clarity In Aims/ Questions, Study Method, Data Collection, Research Context, Data Analysis, Results and Ethical Approval) and was based on 34 items in total. It was found that that in the perception of teachers, students were somehow better in "clarity in aims" and "study methods". However the condition of "data collection, understanding research context, data analysis, finding results and getting ethical approvals" need improvement. There was no statistically significant difference found in the perceptions of the teachers related to quality of research on the basis of gender, sector, age, academic qualification, professional qualification and teaching experience. It is recommended to improve the research quality in distance education system that each department may maintain a research library within the departments for the case of assess of the students. It is also recommended that the research counselor or mentor may be hired specially in distance education institutions only to ensure full time availability of guidance service for research students.

Key Words: *Distance Education, Quality Research, Demographic Diversity*

1.Introduction

Education is a process of training the individual. In Pakistan there are two education systems working, formal and non-formal education. Formal education carries a systematic, organized model, structured and monitored according to given policies, laws and norms. It involves a strictly followed curriculum with objectives, content and teaching methods. It is characterized as "presidential education" that necessarily involves

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the institutes, teachers and students. Normally schools and universities adopt this process. The formal education system is physically and administratively organized that demands maximum attendance of the students in the classrooms. This system involves intermediate and assessment for the promotion of the students to the next stage of education. It awards degrees under a very strict regulation. In many cases students especially at higher level are not able to attend classes on regular basis due to professional responsibilities. Students from remote areas also face this problem. So the Non-formal education is introduced. On other hand Non-formal education allows strategy that does not demand student's attendance on regular basis, Communication between teachers and students take place time to time when needed. The method revolves around home reading and assignments. This process endowed with a very flexible content, curriculum and teaching methods. Students adapt this process according to their interest. In many cases the Non-formal education system does not have a properly established structure like formal education and it lacks facilities. While formal education is structured and well equipped in most of the ways; involving these factors, equality and quality of education is highly influenced. At higher, level both systems involve research that holds a great value. The quality of research is mostly affected by the facilities which are available for the students in both systems. Thus the current research has been designed to assess the perceptions of the teachers related to the quality of research produced by the distance education institutions at higher level in Islamabad.

1.1 Research Objectives

1. To compare the perceptions of the teachers related to quality of research on the basis of gender.
2. To compare the perceptions of the teachers related to quality of research on the basis of sector.
3. To compare the perceptions of the teachers related to quality of research on the basis of age.
4. To compare the perceptions of the teachers related to quality of research on the basis of academic qualification.
5. To compare the perceptions of the teachers related to quality of research on the basis of professional qualification.
6. To compare the perceptions of the teachers related to quality of research on the basis of teaching experience.

1.2 Research Hypotheses

1. There is no difference in the perceptions of the teachers related to quality of research on the basis of gender.
2. There is no difference in the perceptions of the teachers related to quality of research on the basis of sector.
3. There is no difference in the perceptions of the teachers related to quality of research on the basis of age.
4. There is no difference in the perceptions of the teachers related to quality of research on the basis of academic qualification.
5. There is no difference in the perceptions of the teachers related to quality of research on the basis of professional qualification.
6. There is no difference in the perceptions of the teachers related to quality of research on the basis of teaching experience.

1.3 Significance of the Study

The formal and non formal system of education, both are equally important in the development of nation. Non formal education provides a relaxed environment to the ones who want to continue their education side by side their family, social and financial responsibilities. In this way it becomes more significant. As compare to formal education, Non formal education is not a very regular system. The relaxation in the regular class schedule sometimes affects the quality of education and teaching and learning process. So the research would help to assess the quality of research in non formal system of education. In this way, the research would be beneficial for the students studying in distance education system. The findings of the study would be helpful to focus on the areas of research to improve the quality. It would also be beneficial for the teachers to understand and focus on the attitudes of students and by keeping in view their attitude towards distance education system. Keeping in view the available facilities the teachers would be able to utilize the facilities for the improvement of research qualities.

2.Literature Review

With the expansion of educational opportunities through distance education technology and quality assurance has become a major issue. Distance education is not a window of money; it is a window of opportunity for specific purposes and population. Although based on many standards similar to "traditional" higher education, special consideration is needed to reflect the uniqueness of distance education programs. Interest in the concept of distance education attracts the attention of university and college administrators, teachers and other professionals around the world (Willis, 1994; Birnbaum, 2001; Moore, 2003).

Distance education refers to the learners and teachers in different locations of education. Distance education correspondence courses have been used for decades. The current approach is expanding, including new technological advances such as audio and video conferencing, satellite, Internet, video and audio tapes and multimedia. Instructors' experience in teaching face-to-face teaching in a distance learning environment is not considered a distance education. Distance education became a teaching method at least 150 years ago (Holmberg, 1986). The term distance education covers the form of learning at all levels, not under the supervision of the student at the podium or within the same premises, but benefited from planning guidance and tuition fees for teaching organizations (Holmberg, 1977).

The early form of distance education is correspondence learning. With the emergence of more sophisticated methods and media, distance education has been transmitted via satellite or fiber to recording and educational television programs. The Internet opens the door for computerized courses, as well as a supplement to television programs. Rapid changes in technology have changed distance education. New policies are being developed to determine how distance education is hired and used. The growth and impact of distance education and the opportunities offered by it are directly related to the availability of new technologies. As technology transforms remote locations into electronic information networks, people around the world are pulled together and demand for distance education opportunities around the world (Thach & Murphy, 1994).

Distance education scholars continue to focus on the lack of sufficient attention to the theory, especially in the context of distance education learners and learning. Gibson (2003) reported the content analysis of the three major journals of distance education,

revealing that research-based learning articles accounted for only 17% to 21% of the total number of articles reviewed. She continues to point out that most studies focus on individual learners, and the most attractive variables are interactions between learners and learner mentors. With increasing emphasis on learning the community, Gibson agrees with those who advocate more research on this group as a unique learning phenomenon. She further argues that even if distance education researchers gradually accept the theory, they still seem reluctant to learn from the relevant disciplines.

According to the Phipps and Merisotis (1999) studies, the most important issue in the comparative study in distance education was that the overall quality of the original study was questionable and that many of the findings were uncertain, they indicate that the lack of certain quality elements in the experimental design, such as control variables, increases the effectiveness and reliability of the instrument that cannot show the factors and effects, randomized, and instruments used to collect data. Joy and Garcia (2000) also emphasized the design of weak studies in distance education that did not incorporate control measures for certain important variables in the meta-analysis of the comparison of technology-based delivery models with traditional delivery methods used in distance education. According to Meyer (2002), most of the articles on distance education, online education and quality are still position papers, personal experiences and suggestions for people of online courses. These articles may provide good advice, but rarely suggest well-designed research results.

In order to have a high degree of quality in distance education practice, it is necessary to carry out high-quality research to report the results and then apply them to the actual setting of distance education. Translating research into practice, especially high-quality research, will help practitioners in the field of distance education design, implement and evaluate their programs and curricula based on the reliable processes identified in the study.

2.1 Theoretical Frame Work

In this study research quality assessment model developed by Oluka, Nie and Sun (2014) was selected as a theoretical framework. He explained that the quality of research has the following 7 sub factors.

2.1.1 Clear Aim or Research Question

Every research starts with the questions and there are some aims of the study that give direction to the researcher. This factor deals with the reasoning and help to understand the importance of work to be done.

2.1.2 Details of design and study methodology

As mentioned before, research is a systematic process; this factor explains the importance of the research methodology. It leads the researcher to select the targeted population, sample, sample size, data collection tools, data collection and analysis.

2.1.3 Description of data collection

This factor explains how an interpretation of the collected data affects the quality of the research.

2.1.4 Research content; description of the study

This factor explains the importance of the previous researches for further research, and how related literature can improve the quality of research.

2.1.5 Data analysis

This factor revolves around the data analysis through statistical techniques. It explains related statistical techniques to get accurate results. Statistical techniques can play a role in the quality of research.

2.1.6 Results relevant to the aims of the study

This factor discusses the relevance of the aims of the study with the findings and the interpretation of the data. This factor explains the importance the recommendation and practical solutions for research problem.

2.1.7 Obtaining ethical approvals

This factor explains the students understand the importance of ethical approval for conducting research and they seek permission from respondents and institutes for data collection.

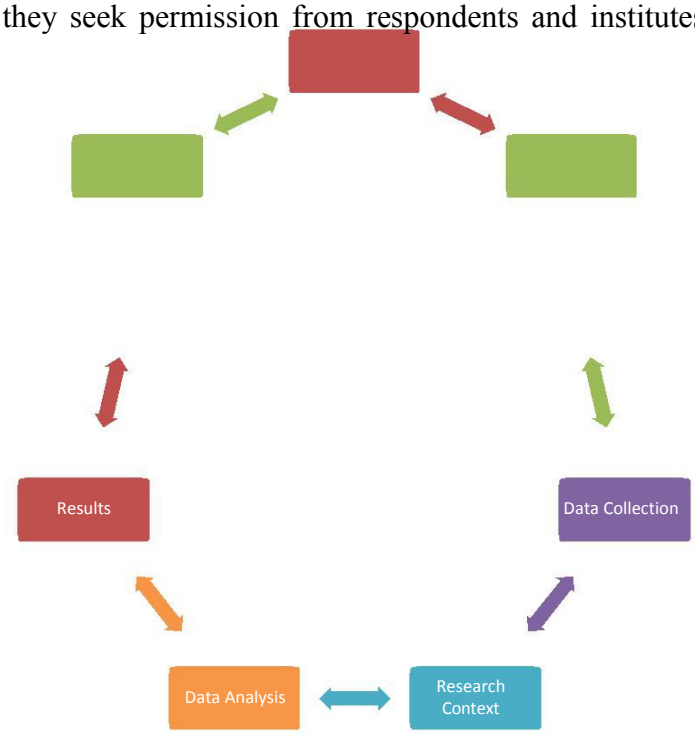

Fig. No. 2 Research quality assessment model developed by Oluka, Nie and Sun (2014)

3.Methodology

3.1 Research Design

The researcher selected quantitative research approach for the conduct of research. The data was collected through the survey and was analyzed by using statistical tests.

3.2 Population

The study population was based on all the faculty members serving in distance education institutions at higher level. In Islamabad 04 public and 03 private sector universities are offering distance education programs. In these 07 universities 3,734 faculty members are hired. These were the population of the study. Following table No. 1 shows the detail of distance education institutions in Islamabad.

Table No. 1 Population of the study

S No	Name of university	Sector	Faculty
1	Allama Iqbal Open University	Public	159
2	COMSATS Institute of Information Technology	Public	2163
3	International Islamic University	Public	500
4	NUML	Public	513
5	Comwave institute of Sarhad University	Private	65
6	Virtual university of Islamabad	Private	280
7	Preston university	Private	54
	Total		**3,734**

3.3 Sample

By using convenient sampling technique 100 faculty members were approached to get their views about quality of research. Out of these selected 100 respondents 66 respondents returned the survey sheet with complete information. Thus the response rate was 66%.

3.4 Data Collection Tool

To address the research variable (Quality of Research), a questionnaire was developed by the researcher in the light of theoretical parameters given by Obiageil crystal oluka, shaofa Nie, Yi sun (2014). Research quality assessment scale was divided into 7 sub sections (Clarity In Aims/ Questions, Study Method, Data Collection, Research Context, Data Analysis, Results and Ethical Approval) and was based on 34 items in total.

4.Data analysis

Data was collected through personal visits of one of the co-authors of the research. The following table explains the statistical tests used for the purpose of analysis.

Table No. 2 Data Analysis

S No	Objectives	Statistical Tests
1	To compare the perceptions of the teachers related to quality of research on the basis of gender	t-test
2	To compare the perceptions of the teachers related to	t-test

	quality of research on the basis of sector	
3	To compare the perceptions of the teachers related to quality of research on the basis of age	ANOVA
4	To compare the perceptions of the teachers related to quality of research on the basis of academic qualification	ANOVA
5	To compare the perceptions of the teachers related to quality of research on the basis of professional Qualification	ANOVA
6	To compare the perceptions of the teachers related to quality of research on the basis of teaching experience.	ANOVA

4.1. Results

Table No. 3 Reliability Analysis of Quality Research Assessment Scale

Scale	Items	Cronbach's Alpha reliability
Quality research assessment scale	34	0.94

Table No. 3 shows that the Cronbach's Alpha reliability of the research quality assessment scale was 0.94. That shows the tool was reliable and can be used in future researches as well.

Table No. 4 Inter-Section Correlation of Quality research assessment scale (N=66)

	Clarity In Aims/Questions,	Study Method,	DataCollection,	ResearchContext,	Data Analysis,	Results	EthicalApproval	Qualityresearchassessmentscale
Clarity In Aims/ Questions,	1							
Study Method,	.	1						
	840**							
Data Collection,	.	.	1					

	882**		719**											
Research Context,		.		.		.	1							
	794**		652**		685**									
Data Analysis,		.		.		.		.	1					
	813**		603**		737**		767**							
Results		.		.		.		.		.	1			
	723**		743**		650**		685**		697**					
Ethical Approval		.		.		.		.		.		.	1	
	235		623**		193		136		063		096			
Quality research		.		.		.		.		.		.		1
assessment scale	974**		932**		858**		784**		786**		782**		408**	

**. Correlation is significant at the 0.01 level (2-tailed).

Table No. 4 shows the intersection correlation between the sub scales of the Quality assessment scale. The table indicates that the highest correlation (.974**) was found between section Clarity in Aims/ Questions and the Quality research assessment scale

Table No. 5: **Teachers Perceptions related to Quality Research**

Quality Research Assessment Scale	N	Mean	Std. Deviation
Clarity in Aims / Questions	66	73.03	18.353
Study Method,	66	46.83	10.113
Data Collection,	66	11.77	3.637
Research Context,	66	11.52	3.579
Data Analysis,	66	11.27	3.715
Results	66	14.62	4.553
Ethical Approval	66	16.80	4.811

Table No. 5 shows that in the perception of teachers, students were somehow better in “clarity in aims” (Mean= 18.35) and “study methods” (10.11). However the condition of “data collection, understanding research context, data analysis, finding

results and getting ethical approvals" was not very good. Thus there is a need of improvement in all related areas of research.

Table No 6: **Objective No. 1: To Compare the Perceptions related to Quality of Research on the basis of Gender**

Variable	Gender	N	Mean	t	df	sig
Research Quality	Male	31	109.52	1.67	64	.09
	Female	35	99.97			

Table No. 6 shows that there was statistically no significant difference (t = 1.67) found between male and female respondents' perception related to the quality of research produced in distance education institutions. Thus the hypothesis No.1 is approved.

Table No. 7: Objective No 2: To Compare the Perceptions related to Quality of Research on the basis of Sector

Variable	Sector	N	Mean	t	df	sig
Research Quality	Public	36	106.33	.71	64	.47
	Private	30	102.20			

Table No. 7 shows that there was no statistically significant (t = .71) difference found between public and private sector related to the quality of research. Thus the hypothesis No. 2 is approved.

Table No. 8: **Objective No. 3: To Compare the Perceptions related to Quality of Research on the basis of Age**

Variable	Age	N	Mean	F	df	Sig
Research Quality	20-30	14	107.57	.34	63	.71
	31-40	42	104.60			
	41+	10	99.50			

Table No. 8 shows that there was statistically no difference (F = .34) found in the opinion of facility members on the basis of age difference related to the quality of research. Thus the hypothesis No. 3 was approved.

Table No. 9: Objective No. 4: To Compare the Perceptions related to Quality of Research on the basis of Academic Qualification

Variable	Academic Qualification	N	Mean	F	df	sig
Research Quality Assessment Scale	Masters	4	91.50	2.25	62	.09
	M.Phil	41	110.07			
	Ph.D.	20	95.75			
	Any other	01	100.00			

Table No. 9 shows that there was statistically no significant (F = 2.25) difference found in the opinion of teachers on the basis of academic qualification relate to the research quality. Thus hypothesis No. 4 is approved.

Table No. 10 Objective No. 5: To Compare the Perceptions related to Quality of Research on the basis of Professional Qualification

Variable	Professional Qualification	N	Mean	F	df	sig
Research Quality Assessment	B.Ed.	14	102.57	1.26	62	.29
	M.Ed.	24	104.50			
	Any other	10	94.10			

	None	18	111.61			

Table No. 10 shows that there was statistically no significant (F = 1.26) difference found in the opinion of the teachers related to the quality of research on the basis of professional qualification. Thus hypothesis No. 5 is approved.

Table No. 11 Objective No. 6: To Compare the Perceptions related to Quality of Research on the basis of Teaching Experience

Variable	**Teaching Experience**	**N**	**Mean**	**F**	**df**	**sig**
Research Quality Assessment	0-3	16	110.94	2.07	60	.08
	4-6	25	109.68			
	7-9	11	100.45			
	10-12	08	92.13			
	13-15	05	95.20			
	15+	01	59.00			

Table No. 11 shows that there was statistically no significant (F = 2.07) difference found in the opinion of teachers on the basis of experience related on the views about research quality. Thus hypothesis No. 6 is also approved.

5. Discussion

Research is the mother of all developments. This is one of the common area that is the part of education in all fields (Birnbaum, 2001). Students from any field of education need to understand and conduct research at higher level of education. This id considered as the compulsory part of degree requirement.

The purpose of this compulsion is to develop a research related attitude among students. However in distance education system students are not in full time contact of

their teachers as in regular system. Thus they need more attention and guidance in this field (Willis, 1994). This field demands clarity of concepts, positive attitude and training. Keeping in view the importance of research the study was designed to see the demographic diversity and its effect on the quality of research produced by distance education (Meyer, 2002). The data collected in this research shows that our students need to improve data collection techniques, understanding research context, data analysis techniques, drawing findings and understanding ethics in research. The study was based on 06 null hypotheses in order to find difference in perception of teachers on the basis of gender, sector, age, academic qualification, professional qualification and experience.

The data showed that no sadistically significant difference found between any compared groups. Thus all hypotheses approved. It shows that in the perception of teachers from all sectors, gender, age, groups, academic/professional qualification and experience were almost same. So students from all group are in need of guidance, facilities and training on equal basis.

6.Recommendations

1. It is recommended to improve the research quality in distance education system that each department may maintain a research library within the departments for the case of assess of the students. Students may get sample researches to be consulted in order to clear their ideas.
2. It is also recommended that the research counselor or mentor may be hired specially in distance education institutions only to ensure full time availability of guidance service for research students.
3. There is a need of establishing computer labs with latest technology to facilitate the research students. Internet and access to valuable online journals need to be provided.
4. To maintain quality of research continuous workshops & training sessions need to be organized for students of all levels, age groups & qualification.

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