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ABSTRACT

Experts on distance education in developing countries were asked their opinions regarding the availability of research information, areas in which research efforts should be concentrated. and the order of priority to be given to various research areas in distance education. Five-page questionnaires were mailed to 90 randomly selected members of the International Council for Distance Education. Usable questionnaires were received from 33 persons (20 males and 13 females) for a response rate of 37 percent. More than 40 percent of the respondents agreed that little research information was available on the following: learner characteristics, development of students' study skills, expert learning systems, and professional development of distance education. More than 70 percent of the respondents agreed that the research efforts should be concentrated in the following areas: design and development of study materials, instructional and communications technologies, learner characteristics, development of students' study skills. systems for providing feedback to students, teacher education, teleteaching and learning, management and planning, and student support services. Funding, lack of personal interest in research projects, and ability to find a researchable problem were ranked as the three biggest problems facing researchers in distance education. (MN)

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EXPERT OPINIONS ABOUT DISTANCE EDUCATION RESEARCH IN DEVELOPING COUNTRIES.

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC):



Abstract

This paper reports on the investigation, carried out as part of a world-wide study, of the opinions of the community of experts in distance education in developing countries of the world regarding: (1) the availability of research information; (2) the areas in which research efforts should be concentrated; and (3) the order of priority to be given to such research areas in distance education. Using a five-part questionnaire the data was gathered from a cross section of distance education experts (consisting of 20 males and 13 females) in 12 countries of the developing world. The results and findings of the study suggest that, according to the experts, the developing countries severely lack research information and also need to embark on vigorous research effort in almost all areas. The experts have also prioritised the areas of research and have ranked funding, lack of personal interest in research projects, and finding a researchable problem as the three greatest difficulties they face doing research in distance education. The results have been discussed and their implications for distance education practice and further research pointed out.



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Introduction

Distance education which has now become a salient feature of the national education systems of many countries of the world, represents a combination of educational, political and economic answer to the recurring question of how to provide traditional formal education to millions of people. Indeed this complete trust in distance education as a panacea to the educational problems of the developing world has led to the founding of Open Universities or similar institutions to take care of the needs for higher education in many countries of the developing world. Some of these institutions include Indira Ghandi National Open University (IGNOU), India; Sukhothai Thammathirat Open University (STOU), Thailand; Air and Correspondence University, Korea; Allama Iqbal Open University (AIOU), Pakistan, Universitas Terbuka, Indonesia; Universidad national de Education a Distancia, Costa Rica; Universidad National Abienta, Venezuela; University of Abuja, Nigeria; University of Nairobi, Kenya; and University of South Africa.

The evolution of distance education from correspondence education which emerged over two centuries ago is still continuing at different paces and directions in various parts of the world. Although it now seems a truism that the growing interest in distance education by developing countries has been primarily stimulated by evidence, and or belief, that distance education is a cost effective means of meeting the demand of education (Taylor, 1989), its implementation, philosophy, role, usage and definition are as different as the number of countries that adapt this form of education. Further more they indicate the availability and use of communications technologies in the delivery of distance education, as well as inform on the presence and growth of the communities of distance educators and practitioners and the expertise within such communities.

Distance education as opposed to the conventional face-to-face system relates to the teaching and learning situation in which most or all the teaching is conducted by a teacher separated in space and time form the learner. Keegan (1990) has listed six elements of distance education as separation of teacher and learner; influence of an educational organisation; use of media to link teacher and learner to educational content; two way exchange of communication; learners as individuals rather than grouped; and education as an industrialised form. In distance education, the expected outcomes of learning are determined and dependent on efficient and effective design of materials to fit the peculiar characteristics and needs of the adult learner (Jegede, 1991). The teaching of course content must also be done using appropriately selected media to complement the print based materials. All these complex activities in the delivery of education at a distance aggregate to form enormous tasks which leave very little room for



distance educators and practitioners to think about the place of research let alone undertake research in distance education.

The information available indicate that research is only just being given some mention within national or regional frameworks. For example, in the Latin American region, a workshop was organised in 1990 to analyse the results of research carried out to diagnose the current situation of distance education in the Americas (Villarroel, 1992). With regards to Africa, The first Pan-African meeting on distance education took place in Tanzania in 1990 under the auspices of UNESCO (1990). The materials presented at the meeting pointed to the fact that information and research is one of the three important factors on which distance education in Africa depends. In India the first comprehensive project in distance education was launched very recently by the Indira Ghandhi National Open University (Singh, 1992). What all this indicate is the absence of the much needed research activities in distance education in the developing world.

Some have adduced the paucity of research in distance education to a number of reasons which include:

- * the field of distance education being relatively young;
- * distance education providers and practitioners often overwhelmed by the sheer volume, complexity and variety of activities involved in the provision of education at a distance, and
- * the tendency to regard research as ancillary to distance education (Coldeway, 1990).

The above reasons could in part be responsible for Coldeway's criticism of distance education research as not planned, conducted, and or reported in a systematic manner. And yet the choice of learning and teaching strategies, instructional design, development, production and delivery of instructional materials using any form of communications technology or the multimedia approach would require that empirical evidence be generated to support their educational significance. This could only be done through enquiry.

This study therefore investigated the opinions of the community of experts in distance education in developing countries of the world regarding:

- (1) the availability of research information;
- (2) the areas in which research efforts should be concentrated; and
- (3) the order of priority to be given to such research areas in distance education.



Methodology

Sample

This puper reports on the data relating to samples from developing countries within a large research study conducted in all the regions of the world.

All the distance educators and practitioners from developing countries who are registered individual members of the International Council for Distance Education formed the population of the study. Using the 1992 membership list, 90 members were randomly selected across the various countries within the developing region of the world as the sample. The sample was spread across 12 countries which included Botswana, China, Costa Rica, Fiji, Hong Kong, Israel, Kenya, Lesotho, Malaysia, Nigeria, Zimbabwe and India. The globally accepted United Nations definition of developing countries (Osmanczyk, 1990), was used as the basis for grouping countries as developing.

Instrumentation and Procedure

The data gathering instrument was a five-page questionnaire divided into five sections. Section A contained biographical details while sections B, C and D sought opinions regarding level of research information, where research effort should be concentrated upon and areas needing priority research attention respectively within distance education. Section E required respondents to rank the difficulties faced with research in distance education. The instrument underwent a series of validation by a panel of judges selected from a cross section of experts in distance education, research methodology, communication and data analysts. The questionnaire was mailed to the subjects within a 3-day period with a letter requesting that they send the questionnaire back as soon as completed.

Results and Findings

Of the 90 questionnaires mailed out, 33 were returned. Considering the problems usually encountered with mailed questionnaires, language problems, incomplete or change of address, etc, the 37 percent response rate was judged to be satisfactory. The sample contained 20 males and 13 females.

The analysis of the frequency of responses to the items in the various sections of the questionnaire indicated that majority of the experts are of the opinion that the level of information available from research in distance education is inadequate (see Table 1).



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Table 1 about here

With specific reference to the experts responses regarding the level of information available for the different broad groupings in distance education, four areas attracted 40 percent and above agreement as having little information available. They are learner characteristics (45.2%), development of students study skills (50%), expert learning systems (51.6%), and professional development of distance education (40.6%).

Table 2 contains the frequency tabulation of experts opinion regarding the areas in distance education requiring concentration of research effort in developing countries. The results as shown in the table indicate that the experts believe more research is needed in virtually all the areas. Worth noting are the areas which attracted more than 70% agreement among the experts as requiring concentration of research effort. These are: design and development of study materials (84.4%), instructional & communications technologies (81.3%), learner characteristics (80.6%), development of students study skills (78.1%), systems for the provision of feedback to students (78.1%), teacher education (73.3%), teleteaching and learning (71.%), management and planning (71%), and student support services (70%).

Table 2 about here

Four broad groupings of research areas had overwhelming support as requiring priority research attention as judged by the experts in developing countries (see Table 3). The areas are development of students study skills (81.3%), professional development of distance educators (77.4%), management and planning (71.9%), and systems for the provision of feedback to students (71%).

Table 3 about here

With regard to ranking the difficulties researchers in distance education often face, funding; lack of personal interest in research projects; and finding a researchable problem were ranked as the top three difficulties in developing countries (see Table 4).

Table 4 about here



The comparison of the results on the basis of the independent variables of gender, present position at work, areas of specialisation, highest qualification, etc., did not yield any significant differences at p < .05 when submitted to ANOVA.

Discussion

This study as a part of a larger investigation examined the opinions of distance education experts and practitioners in developing countries with regard to (1) the availability of research information, (2) areas in which research efforts should be concentrated, and (3) the order of priority to be given to such research areas in distance education. The results and findings of the study suggest that according to the experts, the developing countries severely lack research information and also need to embark on vigorous research effort in almost all areas. The experts have also prioritised the areas of research and have ranked the difficulties they face doing research in distance education.

The issue of the non-availability of research information in developing countries is hardly surprising as there is a logical relationship between conducting research and information available from research activities. As most of the experts have said, there is very little going on by way of research in developing countries. It is therefore expected that there will be no available literature. Developing countries often rely on the developed for research information in most areas of knowledge pursuit. However, it has been noted by Coldeway (1990) that very little has been done by way of research in distance education in developed countries too. Even the so called little research done in the developed countries has been uncoordinated, lack philosophical underpinnings and very much ancillary to the day to day delivery of distance education. This does not mean that the developing countries could not benefit form the limited amounted of literature on research in developed countries. What would be most beneficial would be locally developed research agendas that would answer specific problems arising within developing countries rather than heavy reliance on what is available from developed countries which may not be exactly relevant.

Almost all the areas of broad groupings of research activities in distance education have been nominated by the experts as requiring concentration of research effort in developing countries (see Table 2). If nothing is available it makes sense to suggest that all areas should be looked at. Of particular interest is the fact that almost all the areas attracted over 70% agreement as shown in Table 2. Moore (1988) and Jegede (1991) have argued the need to based all activities and practices within distance education on sound empirical base through research. The argument could be more strongly supported for developing countries where there is heavy reliance on education (and for other reasons which include mass education, economy, etc.,) as



an instrument for total national development. The development of the human resources within a nation requires extreme caution to eliminate any mistakes which could result in untold national tragedies and consequences. It therefore needs no stressing that developing nations must rate as number one, the need to begin all educational activities from sound research information. Taylor (1989) has listed six areas in which research in distance education should focus in South Asia. They are:

- 'understanding the factors which affect the learning processes of students who are at a distance from the providing institution;
- demonstrating the efficacy of particular instructional strategies;
- demonstrating the cost-effectiveness of particular combinations of instructional media;
- evaluating the utility of different distance education techniques in formal and non-formal educational contexts;
- exploring the economic impact of distance education on national development; and
- contributing to the theoretical understanding of distance education'. (p. 87 & 88).

The different areas mentioned in this study by the experts in developing countries as requiring concentration of research activities seem to agree in the main with what Taylor (1989) has recommended for South Asia. Indeed, as could be seen on Table 3, the four broad groupings of research areas judged by the experts to require priority attention also broadly fall within the recommendations.

The distance education experts in developing countries have ranked funding, lack of interest in research projects and finding a researchable problem as the three top difficulties they face. Most institutions within developing countries barely have enough funds for recurrent expenditure, very little for capital costs and almost non-existent allocation for research. it therefore means that the limited financial resources available for distance education would most certainly be allocated to paying salaries of staff and the development of study materials with little or no consideration for research. This situation and the lack of competency in research coupled with the absence of experienced and expert staff to provide guidance in research might be contributory to the lack of personal interest in research projects and the inability on the part of distance educators to find researchable problems. As rightly pointed out by the Director-General of UNESCO (1990), to a gathering of distance educators in Africa, information and research, the production and acquisition of materials and human resource development are three main factors on which the development of distance education in the African region depends. Since all the regions of the developing world seem to have similar problems with research in distance education, it seems appropriate to recommend that the factors should apply to all developing countries.



Conclusion and Implications

The results of the study have indicated that distance education experts from developing countries are of the opinion that (a) there is paucity of information from research, (b) there is the need to embark on more research in all areas of distance education, and (c) priority should be given to the areas of the development of students study skills; professional development of distance educators; management and planning; and systems for the provision of feedback to students. The experts are also of the opinion that Funding, Lack of Personal Interest in research projects, and finding a researchable problem are the three greatest difficulties encountered in research.

A number of issues are implicated from the results of this study. It is obvious from the results of the this research that very little has been accomplished by way of research in distance education in the developing countries and there is therefore a need to embark on research into all areas of distance education. The low level or near absence of research neither provides practitioners with valuable information nor an empirically rooted basis for actions in the effort to provide education at a distance to the teeming population requesting for it. To do this effectively governments of developing countries and especially agencies charged with the responsibility for distance education must direct attention and finance to research. To cut down cost and benefit from the exchange of ideas and information, developing countries might look into the possibility of cooperation with other developing countries in the area of research in, as well as practice of, distance education. As mentioned by Moore (1988), there is an academic need for review and analysis of research and for the organisation of a research agenda for the distance education practitioners and providers all over the world not the least the developing countries. For more comprehensive data on research in distance education and for a continual review of the place of research in developing countries, it would be worthwhile for an extension of this study with a more rigorous design to cover all the developing countries. Embarking on such a study on a periodic basis would be beneficial for planning, management and delivery of distance education in the developing world.



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Frequency tabulation of responses of experts in developing countries regarding the level of information available for the different broad gropuings in distance education.

	Broad Groupings of Research Areas	Adequate	Barely	Little	No	Don't
	broad Groupings of Accestantates	informati	adequate	informati	informati	know
		on	informati	on	on	
j		available	on	available	available	
			available			
1.	Theory and Philosophy	8	8	9	1	4
	_	(26.7)	(26.7)	(30.0)	(3.3)	(13.3)
2.	Learner Characteristics	7	8	14	0	2
	The Manager of the Community of	(22.6)	(25.8)	(45.2)	(0.0)	(6.5)
3.	Equity and Access (compensating for	1 (2.2)	(12.0)	12	5	9
	disadvantage)	(3.2)	(12.9)	(38.7)	(16.1)	(29.0)
4.	Design and development of study	0	14	7	0	0
	materials	(32.3)	(45.2)	(22.6)	(0.0)	(0.0)
					, ,	
5.	Instructional & Communications	4	12	10	0	5
	Technology	(12.9)	(38.7)	(32.3)	(0.0)	(16.1)
6.	Teleteaching and learning	3	10	11	3	4
U.	Teleteaching and learning	(9.7)	(32.3)	(35.5)	(9.7)	(12.9)
7.	Management and Planning	8	12	10	1	0
		(25.8)	(38.7)	(32.3)	(3.2)	(0.0)
8.	Student support services	11	9	11	1	0
		(34.4)	(28.1)	(34.4)	(3.1)	(0.0)
9.	Development of students study skills	4	9	16	0	3
		(12.5)	(28.1)	(50.0)	(0.0)	(9.4)
10.	Systems for the provision of feedback to	5	13	11	1	1
	students	(16.1)	(41.9)	(35.5)	(3.2)	(3.2)
11.	Interactive Multimedia	3	10	11	4	3
		(9.7)	(32.3)	(35.5)	(12.9)	(9.7)
12.	Discipline based context	4	6	12	3	6
	-	(12.9)	(19.4)	(38.7)	(9.7)	(19.4)
13.	Cognition and metacognition	1	7	9	5	7
		(3.4)	(24.1)	(31.0)	(17.2)	(24.1)
14.	Cost benefit analysis	2	11	12	2	4
1.0		(6.5)	(35.5)	(38.7)	(6.5)	(12.9)
15.	Relationship between open learning and distance education	5 (15.6)	12	10	4	8
16.	Industrial and Business training context.	(15.6)	(37.5)	(31.3)	(12.5)	(25.0)
10.	industrial and Business training context.	(6.3)	(18.8)	(37.5)	(12.5)	(25.0)
17.	Research Methodology	8	10	12	0	(25.0)
-"	The state of the s	(25.0)	(31.3)	(37.5)	(0.0)	(6.3)
18.	Evaluation	8	13	9	2	0
	C C	(25.0)	(40.6)	(28.1)	(6.3)	(0.0)
19.	Expert Learning Systems	2	5	16	4	4
<u> </u>		(6.5)	(16.1)	(51.6)	(12.9)	(12.9)
20.	Role of distance education in national	7	13	10	1	1
	development	(21.9)	(40.6)	(31.3)	(3.1)	(3.1)
21.	Teacher Education	9	14	8	1	0
		(28.1)	(43.8)	(25.0)	(3.1)	(0.0)
22.	Professional development of distance	4	9	13	4	2
İ	education	(12.5)	(28.1)	(40.6)	(12.5)	(6.3)
	1	1	' '			``,



Frequency tabulation of responses of experts in developing countries regarding the areas in distance education requiring concentration of research effort.

	Broad Groupings of Research Areas	Commence	More	Less	No more	Don't
	Dioad Groupings of Academica in the	Research	Research	Research	Research	know i
l			needed	Needed	needed	
1.	Theory and Philosophy	7	14	6	0	3
		(23.3)	(46.7)	(20.0)	(0.0)	(10.0)
2.	Learner Characteristics	3	25	2	0	1
		(9.7)	(80.6)	(6.5)	(0.0)	(3.2)
3.	Equity and Access (compensating for	9	15	5	0	2
	disadvantage)	(29.0)	(48.4)	(16.1)	(0.0)	(6.5)
4.	Design and development of study	1	27	4	0	0
	materials	(3.1)	(84.4)	(12.5)	(0.0)	(0.0)
5.	Instructional & Communications	2	26	1	1	2
,	Technology	(6.3)	(81.3)	(3.1)	(3.1)	(6.3)
6.	Teleteaching and learning	2	22	2	1	4
		(6.5)	(71.0)	(6.5)	(3.2)	(12.9)
7.	Management and Planning	4	22	4	0]
l		(12.9)	(71.0)	(12.9)	(0.0)	(3.2)
8.	Student support services	4	21	4	1	0
		(13.3)	(70.0)	(13.3)	(3.3)	(0.0)
9.	Development of student study skills	5	25	2	0	0
		(15.6)	(78.1)	(6.3)	(0.0)	(0.0)
10.	Systems for the provision of feedback to	4	25	2	0	1
	students	(12.5)	(78.1)	(6.3)	(0.0)	(3.1)
11.	Interactive Multimedia	6	18	2	1	4
	·	(19.4)	(58.1)	(6.5)	(3.2)	(12.9)
12.	Discipline based context	5	13	7	1	4
		(16.7)	(43.3)	(23.3)	(3.3)	(13.3)
13.	Cognition and metacognition	4	18	1	0	6
<u> </u>		(13.8)	(62.1)	(3.4)	(0.0)	(20.7)
14.	Cost benefit analysis	5	21	2	0	3
<u> </u>		(16.1)	(67.7)	(6.5)	(0.0)	(9.7)
15.	Relationship between open learning and	3	20	5		l
	distance education	(10.0)	(66.7)	(16.7)	(3.3)	(3.3)
16.	Industrial and Business training context	4 (12.0)	17	5	0	5
 	-	(12.9)	(54.8)	(16.1)	(0.0)	(16.1)
17.	Research methodology	_	1	_	(2.2)	1 -
10	Englandia	(20.0)	(66.7)	(6.7)	(3.3)	(3.3)
18.	Evaluation	(19.4)	(67.7)	(6.5)	(3.2)	(3.2)
10	Franct Lagraina Systems	6	16	4	1	2
19.	Expert Learning Systems	(20.7)	(55.2)	(13.8)	(3.4)	(6.9)
20.	Role of distance education in national	5	19	4	0	2
20.	development	(16.7)	(63.3)	(13.3)	(0.0)	(6.7)
21.	Teacher Education	2	22	5	1	0
		(6.7)	(73.3)	(16.7)	(3.3)	(0.0)
22.	Professional development of distance	7	19	4	T 0	0
	educators	(23.3)	(63.3)	(13.3)	(0.0)	(0.0)



Frequency tabulation of responses of experts in developing countries regarding the areas in distance education requiring priority research attention.

	Broad Groupings of Research Areas	High Priority	Medium Priority	Low Priority
1.	Student support services	19	12	1
		(59.4)	(37.5)	(3.1)
2.	Industrial and Business training context	9	17	5
		(29.0)	(54.8)	(16.1)
3.	Equity and Access (compensating for disadvantage)	15 (48.4)	9 (29.0)	7 (22.6)
4.	Discipline based context	14	10	4
7.	Discipline based context	(50.0)	(35.7)	(14.3)
5.	Expert Learning Systems	13	11	5
		(44.8)	(37.9)	(17.2)
6.	Professional development of distance educators	24	6	1
		(77.4)	(19.4)	(3.2)
7.	Theory and Philosophy	9	16	7
		(28.1)	(50.0)	(21.9)
8.	Development of student study skills	26	4	2
0	Comition and motor militian	(81.3)	(12.5)	(6.3)
9.	Cognition and metacognition	14 (46.7)	10	(20.0)
10.	Role of distance education in national development	20	(33.3)	2
10.	Role of distance education in national development	(62.5)	(31.3)	(6.3)
11.	Management and Planning	23	8	1
		(71.9)	(25.0)	(3.1)
12.	Learner Characteristics	18	13	1
		(56.3)	(40.6)	(3.1)
13.	Systems for the provision of feedback to students	22	7	2
<u> </u>		(71.0)	(22.6)	(6.5)
14.	Cost benefit analysis	18	13	0
15	The land of the second	(58.1)	(41.9)	(0.0)
15.	Teacher Education	(3.1)	15	16
16.	Design and development of study naterials	22	(46.9) 8	(50.0)
10.	besign and development of study materials	(68.8)	(25.0)	(3.1)
17.	Evaluation	24	6	1
		(75.0)	(18.8)	(3.1)
18.	Instructional & Communications Technology	17	12	2
		(53.1)	(37.5)	(6.3)
19.	Interactive Multimedia	14	14	2
		(45.2)	(45.2)	(6.5)
20.	Relationship between open learning and distance	7	16	8
<u> </u>	education	(21.9)	(50.0)	(25.0)
21.	Teleteaching and learning	13	12	5
22.	Passagrah mathadalami	(41.9)	(38.7)	(16.1)
22.	Research methodology	18	(33.3)	3 (9.1)
L	<u> </u>	(54.5)	(33.3)	(9.1)



TABLE 4

Rank ordering of difficulties faced by experts in developing countries with research in distance education.

	Difficulties with Research	Frequency	Rank Order
1.	Competency in research methodology	6	6
2.	Access to relevant literature	9	3
3.	Funding	18	1
4.	Professional advice	6	6
5.	Finding the right audience	5	7
6.	Time Allocation	9	3
7.	Technical advice	7	5
8.	Lack of personal interest in research projects	18	1
9.	Finding a researchable problem	11	2
10.	Lack of my institution's interest in my research efforts	7	5
11.	Report writing	7	5
12.	Political interference	9	3
13.	Research project management	8	4
14.	Lack of personal enhancement from research	9	3
15.	Others (please state)	3	8

