Bulletin of Education and Research
December 2017, Vol. 39, No. 3 pp. 1-17

A Compact Instructional Design Solves Learning Problems and Creates Learning Opportunities

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Abstract

Instructional design in the field of education is a vital issue which needs to be discussed. Instructional design maximizes the value of the instructions for the learners. Instructional design include identifying instructional out-comes, developing instructional contents, delivery of material to learners and establishing how instructional effectiveness will be evaluated. This study aimed to study the current instructional design of education institutions, identify the problems and possibilities of new innovations, to study the gaps between existing practices & opportunities and to suggest the strategies for improvement in instructional design. This study was delimited to Allama Iqbal Open University of Pakistan and population was comprised 75 course writers, 112 course tutors and 516 distance learners. Questionnaires were used to collect the data. The results indicate that course objectives are determined and course contents are developed considering the learners profile in instructional design, learning activities are designed in logical order and innovations are projected. There may be e-learning, e-assessment format and mechanism of collaboration of activities in instructional design. Multimedia i.e. broadcast and non-broadcast support is needed for enhancement of instructional design. Communication and delivery strategies may be promoted for learner interaction. On-job training opportunities and resources are available for all stakeholders of instructional design but more enhancements of resources are needed. Use of modern educational technology, students supports services and evaluation system may be promoted. The findings suggest that blended and innovative learning strategies to be introduced like up-date print material, e-class rooms, video lectures, micro teaching, social media, on-line libraries, out-door learning projects, open education resources, connected instructional design model, massive on-line open courses, sports events and global learning environment.

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E-assessment format having subjective and objective items may be enhanced, emerging learning technology and learner's access to be enriched. Learner's comprehension and exploration opportunities may be created, relevancy and balance activities may be encouraged in courses. Learning facilities as suitable venue and infrastructure may be provided for effective learning, future concerns may be considered in instructional design.

Keywords: Distance education. instructional design, prospects, opportunities, innovations, instructional technology, instructional quality.

Introduction

Education and Instructional Design

Education is a continuous learning process throughout the life. It is highly significant factor for the elevation of human civilization. Education uplifts human standards and guides everyone towards the path of progress and prosperity. According to Satish and Sajjad, (2012) "education is cradle to grave continuous process as it describes extremely significant and permanent property of every individual". Education is one of the basic needs of an individual as it helps to bring the most necessitated and desirable change and also equips an individual to negotiate successfully with difficult challenges. As investment in knowledge pays the best interest and direct impact of education is gain through knowledge. Education helps masses to acquire the perspective of looking at life (Hussain & Pervez, 2012).

Education is powerful agent of seeking out the ultimate truth. Holmberg, (2008) says education improves mental and physical attributes of human beings to realize their talent and potential. Education system is composed of various components, instructional design is one of them through which instructional material is formulated, contrived, and delivered. According to Molenda and Sullivan, (2003) instructional design is infect a mixture of thoughts in organizational development, learning theory and instructional technology. According to Smith and Ragan (2004) it is the method to translate the doctrines of instruction and learning into strategies for activities and instructional materials. Educational strategies and objectives are contrived with the help of instructional design (Baggaley, 2008).

In system of distance education various kinds of instructional design are employed to delivers information to students. Instructional design is being used: (a) instructional design as process which develops the instructional specifications systematically by using instructional and learning theories to insure qualitative instruction. Instructional design is comprehensive and qualitative process of the analysis of learning demands and goals and it also develops system of delivery to fulfill the requirements of learning (Smaldino & Heinich, 2002). This process of

instructional design includes evolution of instructional activities and materials. (b) instructional design as a discipline of knowledge, which pertained with research and theories of instructional schemes. Dougles, (2003) says that it also deals with developmental and implementation process of all those instructional schemes. (c) instructional design as a science deals with comprehensive specifications of development, implementation, evaluation and situational maintenance which alleviates the complexity at all levels whether it is related with subject matter of both small and large units (Rocci & Haghi, 2012). (d) instructional design as reality when process is entirely completed then designer for the sake of refining, checks and evaluates all the components (Atul, 2005).

Development Process of Instructional Design

According to Information Resources Management Association, (2011) "distance learning is supported by those teaching methods in which, because of the physical separateness of learners and teachers, the interactive, as well as the pre-active phase of teaching is conducted through print, mechanical or electronic devices." Whenever any instructor attempt to spot the areas to be taught, bring about the preferred learning outcomes in instructional design. Instructional design comes forth into an action when a teacher seeks to identify the areas of teaching and try to produce the desired outcomes of learning in students. Instructional design process addresses to these questions i.e. the requirements of educational program, objectives and goals of educational program, the learners, the contents of subject, teaching method, facility of media to be used and the progress of learner assessment. The instructional design development process has six stages: (i) need assessment which finds out that why the instructions are necessary. Kizlik, (2010) views that evaluation is an organized process to determine the desires in the existing conditions. Current performance of the instructional design is improved by the need assessments. (ii) audience analysis is based on students who have taken similar distance education courses. Age and educational level of students is distributed for learning out-comes (Butt, 2007). (iii) educational infrastructure and environment may be considered at the time of course is being designed. Infrastructure of educational institutions and environment is maintained for efficient education development. (iv) goals and objectives to the entire process of instructional design is planned in the preparation of accomplishment. These assist instructors and designers to spot what are necessary of content for a course (Ericsson, 2009). Objectives and goals give the route that how to evaluate student's skills and ability. (v) Variety of media will present a range of teaching methods, the average option is supposed to appear after choice of content.

The most important distinction between the distance education & traditional classrooms is interaction and communication. According to Brandao, (2012) for efficient education suitable teaching manner must be adopted in the teaching activities. (vi) evaluation techniques has useful foundations on learning goals. Horton, (2006) views that present assessment methods are employed for correct and ideal outcomes. In the course of assessment, quantitative and qualitative degree is measured. In-formal and formal, subjective and objective, summative and formative actions are conducted to evaluate the system of instructional design (Vergis & Hardy, 2010).

Educational Technology and Instructional Design

Educational technology is utilized in order to assist and enhance teaching learning process. Scholars have identified certain varieties of educational technologies that whole world is utilizing for learning and instructional purposes. For Example, mobile phones computers, CDs, DVDs, social networks, podcasts, audio/visual cassettes, wiki, blogs, TV/LCD, radio, emails, one way video conferences, internet and discussion forums which are known as web Blogs are used for students sharing of ideas. According to Zamzam, (2012) educational technology is the ethical practice and study to facilitate learning and developing performance by managing and utilizing suitable technological resources and processes. Instructional theory and learning theory are sometime included and associated with the term educational technology and on the other hand, instructional technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.

The fundamental purpose of educational technology is to advance and enhance education for the twenty first century's students. Today students are measured "Digital Natives" who are born & grown up in a digital era naturally assume different due to this disclosure to technology. Although there are a lot of benefits of educational technology but few of them are: (a) students may study at any place and time of their choice and may obtain the study material very quickly which is posted by their course instructors or tutors on the web site of the institution or blog. (b) student inspiration, according to James, on-line (2014) the benefits of computers to give instructions for learners it takes less time to learn when they obtain computer based instructional material, guidelines and assistance from their tutors which brings positive results and attitude for such sort of instructions. It is important for a teacher that he must be aware of his student's attitude and behavior to execute the technological advancement in classrooms. (c) technology also helps to motivate

students that they are interested in subject that helps them to learn more effectively. The use of technology has enhanced benefits in the classroom, to target the needs for digital materials and screens. (d) more technology opportunities give learners to use instructional materials at home and engage with various resources available online to them. By using the computers at home having internet facility, students may conduct research, email, play and stream educational videos. (e) broad involvement and improving writing skills. Instructional text may be utilized and accessible to a broad audience for learning from a long distance. To improve the quality of writing this is easy for students to correct their written work using word processors. Various studies have concluded that technology also enhances in editing, writing and critiquing skills of the learners. (f) it focus on the ongoing participation of the learner and to give distinguished questioning strategies. It has broadened the individual instructions and encouraged growth of personal learning plans in various computer programs available to the tutors, instructors and teachers. To employ multimedia students are encouraged to add the information they got in innovative ways. Technology provides students to progress individually to higher level of thinking through applying various concepts of creatively and to create simulation from low ordered skills acquired through drill and practice activities. There are positive results and impacts of internet on teachers, instructors, tutors, educational system, learners and students.

Instructional Design of the Universities

The world universities develop and implement instructional design system, considering their demographic conditions and needs. The major universities are: the Open University Malaysia (OUM) is the largest Malaysian Open and Distance Learning University that discharge the people's desire to raise the access of higher education, in particular employed citizens. With reference to learning and teaching, the university uses the mixed approach that joins written learning resources as the most important learning basis increased by online learning through a particularly developed Learning Management System (LMS) and by face-to-face communications at various regional centers. Asynchronous forum board is one of the significant characteristic included into the LMS. The asynchronous forum board provision permits to empower a geographically discrete students and learners to take part in a mutual learning environment with peers and tutors (Abdullah, Hanafi, & Cheah, 2005).The Centre for Instructional Design and Technology develops Open Distance Learning texts for university and other sister establishments. It function is to develop a variety of course resources i.e. multimedia content, web-based materials and printed modules. The centre narrowly works with other disciplines. Further, it also produces experts to generate the learner-centered resources. These resources are

not only meet basic needs of the learner within the OUM but also are engaging and interesting due to their basis on mixed pedagogical approach. To support the institutional requirements offering consoling support, multimedia courseware and audio and video recording of events are also the functions of the institution.

China has also attracted the world's eye in its role in education, especially has a substantial contributions in the Medical, and Engineering fields. Like other open universities of the world, Open University of china (OUC) was established with a mission to educate the Chinese people, therefore shoulders the responsibility of spreading education, skills and knowledge. Therefore, for this purpose uses various methods to arrange the transmission of audio and visual courses, Web-based courses and to print of a range of media teaching text. For the large number of learners registered in compulsory courses internet and satellite TV are used to transmit the courses all over the country. It makes available teaching texts for the compulsory courses to the provincial RTVUs that have been given the responsibility to broadcast the instructional material and texts locally. To perform the teaching functions and activities learning centers may utilize these materials and facilities (Jung and Belawati, 2013). Special attention is given to while the teaching of compulsory courses and other course delivery. Students of OUC are taught through correspondence, live broadcasting classrooms, Vertical Blanking Interval (VBI), component of a TV signal that hold information i.e. closed caption text), telephone and internet tools for example online discussion forum and e-mail. Further, in provincial RTVUs of the Open University of China guiding principles and assistance for face-to-face discussion and teaching resources for these face-to-face tutorials is given to the students and learners (Jonassen, 2011).

The Open University of Japan televises lecture and managerial broadcast programs. It possesses global radio and television stations at the headquarters in Chiba City for broadcasting purposes. Recording and editing of programs is done in the headquarters while transmitting is conducted from the Tokyo Tower through FM radio and UHF television and conveyed at Maebashi, Gunma to reach Kanto areas and also hired Communications Satellite broadcasting channels for the nation. The medium of instruction in these broadcasts is Japanese language. Broadcasting of commercial messages is prohibited broadcasting act. The government subsidies broadcasting system's cost from the annual budget and this is not associated with any other broadcasting network however in the early days Tokyo TV station provided some assistance for such purposes (The Open University of Japan, 2013).

Allama Iqbal Open University of Pakistan provides educational opportunities to people and has unlocked opportunities to get education the working class and access at the doorsteps for the females too (Rashid, 2000). The university is based upon distance education and uses multi-media approach. The most important parts of its instructional design are: self-learning printed text and supplementary material, broadcast on TV and Radio, seminar of instructions, course assignment, tutorial support and use of educational technology. The centre for instructional design develops technology integrated instructions, evaluation approach, reconsider the course to mirror technology well-off environment, increasing media for web based instructional functions, formulate the policy guidelines and integration of print materials into technology based learning is the objective and function of the centre. The Sarhad University of Science & Technology Pakistan was established with a slogan Education for All and has started distance learning programs. It has systematic and an integrated learning structure for the distance-learning students in different fields. The university has a very systematic instructional design system for delivery of information, skills and knowledge for its students. Pervaiz, Kanwal, and Muhammad, (2009) viewed instructional design system of the university relies greatly interact with fellow learners, experts and teachers, to instruct, guide and counsel in time, to use the latest technology and other tools sharing information, to make available journals, books and other texts, to improve and develop the learning environment, cost-effectives of the programs, distance education through online, assessments, delivery and course development and through Seminars, Conferences and workshops.

Virtual University of Pakistan also established for the purposes of spreading education and enhancing skills across the country to meet the modern requirements. VU educates by means of well-judged mixture of internet and TV broadcasts and well-known experts and researchers of concerned field design courses. Recorded lessons and lectures after insertion of movie clips, slides and other texts are prepared for transmission. To broadcast the course lectures television and multimedia CDs are used. They are also available through the streaming media from the VU's servers. Various designs allow for a maximum flexibility to students and they may watch lectures any time of their choice within a 24-hours period. Besides the recommended texts, broad lecture notes and reading materials consisted of web-enabled contents are given via comprehensive Learning Management System (LMS) that is available on Web Servers of the university and may be accessed through internet. Hyperlinks are utilized to make the online practice strictly powerful one. The system also gives discussion boards for interaction within the VU community and e-mail facility to all of its students (Best of Our Universities, 2014).

Methodology

Keeping in view the nature of this study a descriptive survey, qualitative and quantitative research methodologies were adopted to complete the research work. For this study questionnaires were developed for course writers, course tutors and students. Questionnaires having parameters of course analysis, material development, media input, delivery system and evaluation techniques in general consist of number of statements for the measurement of subject variables. After development of the instrument, pre-test was carried out to determine the effectiveness of the instrument. After initial construction of the questionnaires editing was made, each questionnaire of course writers and tutors was presented to five experts for professional validation, while questionnaire for students was served to five experts. These experts were well experienced in instrument development techniques. Pilot testing was carried out to estimate the reliability of the instrument. The questionnaires were presented to the respondents who were part of the population but not part of the sample population to analyze the consistency, accuracy and co-relation of the statements. For estimating reliability i.e. internal consistency and co-relation/coefficient among statements Cronbach Alpha was used through SPSS Version. The accepted cut-off value for reliability was equal or greater to 0.7-0.9. Results showed all the constructs exceeded the threshold value of 0.70, except in some statements which were re-phrased, re-shaped and re-constructed, and then the required score of reliability was obtained.

The population is comprised of 75 course writers, 223 course tutors and 1031 students. Random sampling procedure was adopted for 112 course tutors and 516 students for data collection of this research study. The researcher personally and through pre-paid postage administered the instrument to the sample population. The filled questionnaires were collected back personally and through postal mail from the sample population. As the questionnaires consisted of rating scale, to analyze the data, weight age to different options was given as, SA=5, A=4, UNC=3, DA=2 and for SDA=1. Data from all the six groups was grouped, coded and analyzed by using statistical techniques of Percentage, Mean Score, Variance, One way Analysis of Variance, Post Hoc Test for Comparative Analysis and Duncan Test for Homogeneous Analysis through Excel and SPSS Version 16.4. (The Mean Score could range from 1 to 5, the score 3 and above was taken as favorable). The scale value was assigned in the Variance as: extremely favour=0 – 0.5, strongly favour=0.6 – 1.0, moderately favour=1.1 – 1.5, average favour=1.6 – 2.0 and poor favour=2.1 & above (score 0-1.5 was taken as favorable).

Results

Table 1

Mean Score and Variance

Variables	Course writers		Course Tutors		Course Learners	
	Mean	Variance	Mean	Variance	Mean	Variance
Measureable course objectives.	3.5	1.12	3.4	1.01	3.1	1.30
Standardized techniques in course production.	3.6	1.70	3.3	2.00	3.0	1.90
Varieties of learning activities.	2.7	1.83	2.1	2.67	1.9	2.79
Creativity in development process.	2.9	1.58	2.4	1.20	2.0	2.00
E-learning format.	2.7	1.70	2.0	1.82	1.8	1.91
E-assessment techniques.	3.8	1.19	3.9	1.35	4.0	1.57
Communication skills.	3.7	1.71	2.9	2.00	2.7	1.90
Innovative instructional design.	4.2	0.60	4.0	078	3.9	0.87
Emerging modern educational technology.	4.1	0.63	3.9	0.72	4.0	0.84

Table 1 presents that the mean 3.1, 3.4 & 3.5 shows that course objectives are clearly measureable. Variance 1.70, 1.90 & 2.00 of respondents favored that courses are produced with the application of standardized techniques of instructional design. Results about verities of learning activities also significant for improvements. Mean 2.0, 2.4 & 2.9 reveals that there is less creative activities in course development process. The majority respondents disagreed that courses are provided on e-learning format, while mean=3.8 of respondents showed that E-assessment techniques are may be used in the courses. Variance 1.71, 1.90 & 2.00of respondents show that communication skills of the learners may be developed by instructional design and instructional design to be more functional and innovative. Mean score 3.9, 4.0 & 4.1 indicates that modern educational technology may be merged with instructional design.

Table 2
One-Way ANOVA Test Results

Variables		Sum of Squares	df	Mean Square	F	Sig.
Course Analysis	Between Groups	1.129	2	.565	.495	.610
	Within Groups	625.398	548	1.141		
	Total	626.527	550			
Material Development	Between Groups	38.286	2	19.143	14.065	.000
	Within Groups	745.864	548	1.361		
	Total	784.149	550			
Media Input	Between Groups	9.215	2	4.608	3.352	.036
	Within Groups	753.314	548	1.375		
	Total	762.529	550			
Delivery System	Between Groups	3.895	2	1.947	1.328	.266
	Within Groups	803.664	548	1.467		
	Total	807.558	550			
Evaluation Techniques	Between Groups	.903	2	.451	.316	.729
	Within Groups	782.745	548	1.428		
	Total	783.647	550			

Source: Calculated by Author using SPSS 16.4

Results of one way ANOVA are reported in table 2, which shows dependent variable i.e. course analysis, material development, media input, delivery system and evaluation techniques. Computed results of sum of square, degree of freedom, mean square, F-statistics and their significance are shown. Results suggest that two variables that is material development and media input of three population (writers, tutors and learners) are significant at 5% level of significance. As values of material development and media input (0.00 & 0.03) both are less than 0.05. This means that there should be more rely on training opportunities; material resources and strategies for material development may be improved for instructional design. Media input may be provided for learner's access through broadcast and non-broadcast support for enhancement of instructional design.

Table 3
Post Hoc Test for Multiple Comparisons

Dependent Variable	Category (I)	Category (J)	Mean Difference (I-J)	Std. Error	Sig.	95%Cof: Interval	
						Lower	Upper
Course Analysis	writers	Tutors	.07810	.17509	.656	-.2658	.4220
		Learners	.13631	.14488	.347	-.1483	.4209
	Tutors	Writers	-.07810	.17509	.656	-.4220	.2658
		Learners	.05821	.12416	.639	-.1857	.3021
	Learners	Writers	-.13631	.14488	.347	-.4209	.1483
		Tutors	-.05821	.12416	.639	-.3021	.1857
Material Development	writers	Tutors	.20961	.19121	.273	-.1660	.5852
		Learners	.69858*	.15822	.000	.3878	1.0094
	Tutors	writers	-.20961	.19121	.273	-.5852	.1660
		Learners	.48897*	.13559	.000	.2226	.7553
	Learners	Writers	-.69858*	.15822	.000	-1.0094	-.3878
		Tutors	-.48897*	.13559	.000	-.7553	-.2226
Media Input	Writers	Tutors	.41850*	.19216	.030	.0410	.7960
		Learners	.40314*	.15901	.012	.0908	.7155
	Tutors	Writers	-.41850*	.19216	.030	-.7960	-.0410
		Learners	-.01536	.13627	.910	-.2830	.2523
	Learners	Writers	-.40314*	.15901	.012	-.7155	-.0908
		Tutors	.01536	.13627	.910	-.2523	.2830
Delivery System	Writers	Tutors	.23443	.19848	.238	-.1554	.6243
		Learners	.26760	.16423	.104	-.0550	.5902
	Tutors	Writers	-.23443	.19848	.238	-.6243	.1554
		Learners	.03317	.14075	.814	-.2433	.3096
	Learners	Writers	-.26760	.16423	.104	-.5902	.0550
		Tutors	-.03317	.14075	.814	-.3096	.2433
Evaluation Techniques	Writers	Tutors	.02910	.19588	.882	-.3557	.4139
		Learners	-.07142	.16208	.660	-.3898	.2470
	Tutors	Writers	-.02910	.19588	.882	-.4139	.3557
		Learners	-.10052	.13890	.470	-.3734	.1723
	Learners	Writers	.07142	.16208	.660	-.2470	.3898
		Tutors	.10052	.13890	.470	-.1723	.3734

Source: Calculated by Author using SPSS 16.4

Results of Post Hoc test for multiple comparisons are reported in table 3. Variables course analysis, material development, media input, delivery system and evaluation techniques are used by three population i. e. course writers, course tutors and distance learners respectively. Population course writers are compared with course tutors and distance learners, course tutors are compared with writers and

learners and learners are compared with writers and tutors respectively. Cross analysis among the population was carried out through LSD (least significant difference) with each variable through same method. The results suggest that at LSD course writers are significant with distance learners (0.00) in material development, while course tutors are significant (0.00) with distance learners. Distance learners are significant (0.00) with both course writers and tutors in material development. Results also suggest that course writers are significant (0.03) with course tutors, while (0.01) with distance learners in media input. In second case course tutors are significant (0.03) with course writers and distance learners (0.01) with course writers in media input. This means material development and media input may be improved in instructional design. Results also suggest that course writers, course tutors and distance learners are not significant with respect to variables course analysis, delivery system and evaluation techniques.

Table 4

Homogeneous Test for Course Analysis

			Subset for alpha = 0.05
	Category	N	1
Duncan	Distance learners	397	3.5330
	Course tutors	91	3.5912
	Course writers	63	3.6693
	Sig.		.394

Source: Calculated by Author using SPSS 16.4

Homogenous test results for course analysis are reported in table 4. Three populations are presented category wise with respect to their sample sizes. Mean for groups are displayed in homogenous subsets for alpha at 5% level of significance. Results of course analysis suggests that category wise populations distance learners, course tutors and course writers with their respective sample sizes showing homogeneity in their group means such as 3.5, 3.5 and 3.6 respectively. Results suggest that all population that is course writers, course tutors and distance leaner's for course analysis are 39% significantly homogenous at 1 subset i. e 3.5, 3.5 and 3.6 respectively, which means that writers, tutors and learners are homogenous for course analysis.

Table 5
Homogeneous Tests for Material Development

			Subset for alpha = 0.05	
	Category	N	1	2
Duncan	Distance learners	397	2.8279	
	Course tutors	91		3.3168
	Course writers	63		3.5265
	Sig.		1.000	.200

Source: Calculated by Author using SPSS 16.4

In table 5 results of material development suggests that populations such as distance learners, course tutors and course writers with their respective sample sizes showing homogeneity in their group means such as 2.8, 3.3 and 3.5 respectively. Population's means for groups are homogeneous in two subsets. First subset includes distance learners with their group means such as 2.8 are 100% significantly homogeneous. Second subset includes category of course tutors and course writers with their respective sample sizes are showing 20% significant homogeneity in their group means such as 3.3 and 3.5.

Table 6
Homogeneous Test for Media Input

			Subset for alpha = 0.05	
	Category	N	1	2
Duncan	Course tutors	91	3.3077	
	Distance learners	397	3.3230	
	Course writers	63		3.7262
	Sig.		.925	1.000

Source: Calculated by Author using SPSS 16.4

In table 6 results of media input suggests that populations such as course tutors, course learners and course writers with their respective sample sizes showing homogeneity in their group means such as 3.3, 3.3,and 3.7 respectively. Population's means for groups are homogeneous in two subsets. First subset includes course tutors and course learners with their group means such as 3.3 and 3.3 are 92% significantly homogeneous. Second subset includes category of course writers only with respective sample size are showing 100% significant homogeneity in their group means such as 3.7.

Table 7
Homogeneous Tests for Delivery System

			Subset for alpha = 0.05
	Category	N	1
Duncan	Distance learners	397	3.1134
	Course tutors	91	3.1465
	Course writers	63	3.3810
	Sig.		.137

Source: Calculated by Author using SPSS 16.4

In table 7 results of delivery system suggests that category wise populations distance learners, course tutors and course writers with their respective sample sizes showing homogeneity in their group means such as 3.1, 3.1 and 3.3 respectively. Results of group means for homogenous subset are displayed which suggest that all populations are 13% significantly homogenous for delivery system, also showing one subset of alpha at 5% level of significance.

Table 8
Homogeneous Tests for Evaluation Techniques

			Subset for alpha = 0.05
	Category	N	1
Duncan	Course tutors	91	3.1190
	Course writers	63	3.1481
	Distance learners	397	3.2196
	Sig.		.575

Source: Calculated by Author using SPSS 16.4

In table 8 results of evaluation technique suggests that category wise populations course tutors, course writers and distance learners with their respective sample sizes showing homogeneity in their group means such as 3.1, 3.1 and 3.2 respectively. Results suggest that course tutors, course writers and distance learners are 57% significantly homogenous for evaluation techniques with one subset for alpha at 5% level of significance.

Conclusions

There are varieties of activities and logical order in components of instructional design, there should be creative approach i.e. exploration, coordination, group task, e-learning and e-assessment format. Multimedia i.e. broadcast and non-broadcast support is needed for enhancement of instructional design. Communication and delivery strategies may be promoted for learner interaction. There are training

opportunities and material resources for stakeholders. Modern educational technology, students supports services and evaluation system to be promoted. There are gaps in theory and practices in Evaluation system, E-learning format, Learner responses, Contents understanding and Tutorial support services in instructional design system of distance institutions. Opportunities are also available to promote instructional design activities such as professional development of stakeholders of instructional design, to lunch e-learning programs and innovation in courses. Exchange of study tours and e-assessment strategies can be improved.

Recommendations

Instructional design has multi dimensional aspects, innovative and blended strategies to be introduced i.e. broadcast channels, on-line & digital libraries, mobile learning projects, sports events, international workshops & conferences and social media. Modern evaluation techniques produced standardized results hence modern and e-assessment techniques may be enhanced, free and rapid learner access for record and information may be provided. It is recommended to maintain creativity, exploration and comprehension in course contents. Basic facilities as suitable venue and infrastructure may be provided for effective learning. Systematic and continuous research may be undertaken for future vision of instructional design. To check progress and effectiveness of instructional design an independent monitoring unit may be established. On-job training facilities and job-satisfaction incentives may be increased for all the stakeholders of instructional design.

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