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## COMPARISON OF INSTRUCTIONAL MATERIAL OF M.ED PROGRAM OFFERED THROUGH DISTANCE EDUCATION BY ALLAMA IQBAL OPEN UNIVERSITY AND SARHAD UNIVERSITY OF SCIENCE AND INFORMATION TECHNOLOGY

### *Abstract*

*The purpose of the study was to compare to instructional material of M.Ed program offered through distance education by AIOU and SUIT. The study consisted of 489 students of AIOU and 234 students of SUIT were enrolled in M.Ed program during the autumn 2011 semester to Spring 2012 semester were selected randomly as the sample of the study. Survey methodology was employed to collect data through a self-administered questionnaire on Five-point rating scale. After the development of research tool, pilot study was conducted on 20 students from each of the two universities. In the light of pilot testing some statements were modified, added and deleted. The final version of questionnaire was developed and administered. Reliability of the questionnaires was also determined through SPSS software and calculated values of Cronbach Alpha Co-efficient was 0.731. In this study the measure of actual usage of the print-based instructional material by students of M.Ed program was subjective and based on the opinion of the respondents through five-point Likert scale questionnaire. On the base of findings of the study it is concluded that students of M.Ed program are in favour of the importance of instructional material especially in the area of their learning skills. Therefore it is recommended that the writing style of instructional material may be improved and*

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*organized in logical sequence so that every distance learner can easily understand and can continue his/her study at his own pace, time without the support of tutor.*

**Key Words:**

*Instructional Material, M.Ed Program, Distance Education, Allama Iqbal Open University (AIU), Sarhad University of Science and Information Technology (SUIT)*

## ***Introduction***

Distance education is well planned and organized form of education. It is a system of imparting knowledge at a distance from educational institutions to instructor and student with the application of different instructional materials, instructional methods, courses and usage of various technologies.

Distance education provides educational opportunities to a large number of people who could not have such opportunities previously and there is chance for such people to continue their education. Distance education is also suitable to those who are in service and want to enhance their professional education or skills (Rashid, M. 1998).

Distance education allows students to learn at their own pace, place and provides interactive and interesting study material and localized learning facilities where students can seek academic and other forms of educational assistance (Daniel, J.S. 1996).

In distance education students are facilitated at some distance with the help of different types of instructional material. The main objective of instructional material is to involve the students into the studies by putting activities and self-assessment exercises.

According to Race, P. (1994) instructional material in distance learning is essentially a case of designing things for learners to do, from which they can learn. Distance learners do not attend their classes on regular basis and mostly work individually with the help of instructional material. As Portway, P. and Lane, C. (2002) stated that "In distance education, instructors and learners are geographically separated and therefore, rely on electronic/online strategies and print materials for instructional delivery."

Instructional material in distance education is developed to facilitate learner without the support of his/her teacher/tutor and most effective instructional material is that which import content or concept of a particular subject or course.

Rowntree, D. (1997) suggested that instructional material should be specific for learners, have linkage with learners own experiences and improve their own learning skills, help to learn content, make clear the objectives of the course, help learners to go through text, build on understanding level of learners, implement new knowledge and provide formative and summative assessment activities.

In distance education learning printed material is developed with student centered approach and it activities are designed to help students to work independently at their own pace. According to Swales, C. (2000) instructional material in distance education should be learner-centered and enables students to become involved and motivated by the materials and to take possession of the skills and knowledge that they acquire. The instructional material objectives should be in behavioral terms and provide students opportunities to improve their knowledge and learning skills.

Instructional material is essential component of distance education and it is design and develop on the principles of learning theories and have advantages in distance learning because these materials create desirable conditions that will facilitate effective self learning, i.e. knowing the objective, follow the content step by step, involving the students actively in learning.

Lockwood, F. (1997) highlighted the advantages of self-instructional material in these words: instructional material stimulate interest among the students, designed for a specific learner, provide opportunities for self-assessment, allow for summaries, provide study skills i.e. reading, writing, listening and speaking, students give active response during self-learning and face-to-face interaction.

Different open and distance education universities used different types of instructional material but study guides are more frequently used in distance education. It is natural that so far educators paid more attention to print material than to other media. These guides are self-explanatory.

According to SUI report (2012), the instructional material is developed in simple language. Assignments are given and instructional material is developed to facilitate students at their own place and pace. The print based material (Study guide) is divided into many chapters.

The development of instructional material in distance education is comprehensive process because this process contains designing, writing, developing, reviewing and editing. Reddy, G.R (1995) mentioned that following steps should be considered during the development process of instructional material;

1. Development of the blue print for each material. This indicates:
  - a. content outline and types of learning activities
  - b. types of instructional methodologies
  - c. learning steps to be followed
  - d. procedure of formative and summative evaluation
  - e. format of material presentation
2. Preview and improve the blue print of instructional material
3. Develop the actual material on the basis of improved blue print
4. Review and improve the material

Instructional material for a particular program or course of study through open and distance learning will, involve self-paced study, online interaction with academic tutorial, completion of in-text activities, practical/field experience, research, and face-to-face interaction among learners and with course facilitators. It should consist of activity-based learning aimed at achieving hands-on-experience for learners and provide opportunities to learners to assess their progress.

Allama Iqbal Open University is the first Open University in Asia. It was established in 1974 and received the status of Mega University. AIU is a distance education institution, which provides multi-dimensional education from basic to doctoral level programs. The university utilizes distance and non-formal method of correspondence, radio and television broadcasts, special textbooks and reading materials prepared on self-learning basis, part-time tutors occupied nearest to the student's residences. The university has more than 36 regional campuses and centers in various parts of the country to manage and to

facilitate students at their own area (Jumani, N.B, Shahinshah B. K and M. A. Hussain, 2010).

The Sarhad University of Science and Information Technology Peshawar a private sector university in Pakistan offering different teacher education programs i.e. C.T, B.Ed and M.Ed through distance mode. (Information Booklet of SUIIT, 2012).

Since this research seeks to compare the instructional material of M.Ed program of Allama Iqbal Open University and Sarhad University of information technology. Following objectives were made in this research study;

1. To find out the importance of instructional material of M.Ed program of AIOU and SUIIT
2. To analyze the nominal cost of instructional material of M.Ed program of AIOU and SUIIT.
3. To compare the writing style of instructional material of M.Ed program of AIOU and SUIIT
4. To analyze the learning skills of the students achieved through instructional material of M.Ed program of AIOU and SUIIT

For the achievement of these objectives following null hypotheses were made

H<sub>0</sub>1: There is no significant difference between the importance of instructional material of M.Ed program of Allama Iqbal Open University and Sarhad University of Science and Information Technology.

- H<sub>0</sub>2: There is no significant difference between the availability of instructional material at nominal cost of M.Ed program of Allama Iqbal Open University and Sarhad University of Science and Information Technology.
- H<sub>0</sub>3: There is no significant difference between the writing style of instructional material of M.Ed program of Allama Iqbal Open University and Sarhad University of Science and Information Technology.
- H<sub>0</sub>4: There is no significant difference between the learning skills of M.Ed students achieved through instructional material of Allama Iqbal Open University and Sarhad University of Science and Information Technology.

### ***Methodology***

The study was descriptive in nature i.e. survey design was consider most suitable. As Schwab, D. P. (1999) stated that “in survey design focus is given to relatively simple research issues or problem which investigates one or more independent variables”. In quantitative research, survey design gives detailed account of a particular issue, person or process (Grix, J. 2004). In survey design as the population in most cases is large and there are one or more variables. According to Gay, L. R (2000) “a survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables.”

In this research data was collected through questionnaire and all the information related to the population of the study was obtained from the office of Regional director Allama Iqbal Open University Abbottabad and mass education department of Sarhad University of Science and Information Technology Islamabad.

### ***Population and Sample of the study***

The population of the study comprised of 1166 M.Ed (STE) program students (780 of AIOU and 386 of SUIT) were enrolled in M.Ed program of both the universities during Autumn 2011 semester to Spring 2012 semester. Due to large population 62% of the population i.e. 489 students of AIOU 62% of the population i.e. 234 students of SUIT were enrolled in M.Ed program of both the universities during Autumn 2011 semester to Spring 2012 semester were selected randomly as the sample of the study.

### ***Research Tool***

A questionnaire is an efficient means of collecting data from a scattered and large population. Gay, L.R. (2000) stated that "the use of questionnaire has some definite advantages over other methods of collecting data that are not available through other sources". Questionnaire is a reformulated written set of questions to which respondents record their answers within rather closely defined alternatives and can be administered personally, mailed to the respondents or electronically distributed (Sekaran, U. 2003).

In this study a five points Likert scale questionnaire was developed. Thorndike, R. M and Tracy, T.C. (2012) stated that Likert scale usually require the subjects to respondent to the statements by using a numerical indication of the strength of their feeling toward the object or position described in the statement.

Ahmad, M. (2008) explained Likert scale as; "in Likert scale the respondent indicates his degree of agreement or disagreement with each statement". In this research study questionnaire items were designed on 5 points Likert scale i.e. strongly agreed, agreed, uncertain, disagreed and strongly disagreed. The respondents

(students) were asked to respond to each item. Each of the response categories were weighted a numeric value. A negative response (strongly disagreed) was allotted weight "1" and highest positive response (strongly agreed) was allotted weight "5"

After the development of research tool, pilot study was conducted on 20 students from each of the two universities. Sample of the pilot testing was not included in actual sample of the study. In the light of pilot testing some statements were modified, added and deleted. The final version of questionnaire was developed and administered. Reliability of the questionnaires was also determined through SPSS software and calculated values of Cronbach Alpha Co-efficient was 0.731.

After finalizing, the questionnaire was sent to sample of the study via registered mail and e-mail. All the sample addresses were taken from AIOU regional director Abbottabad office and SUIIT department of mass education Islamabad. A reminder was given to the respondents between initial mailing of questionnaire and reminder postal. Data was collected through questionnaire and was interpreted and analyzed by using statistical formulas i.e. Mean Score, and *t*-test.

## *Findings*

Table 1 Opinion about the importance of instructional material

University	Mean	<i>t</i> - cal value
AIOU	3.47	0.046
SUIT	3.46	

In Table 1 the responses of the students of M.Ed program of both AIOU and SUIIT were compared to find out the importance of instructional material. The means scores of AIOU and SUIIT were 3.47 and 3.46 respectively. This proved that students of both

universities had positive opinion towards the importance of instructional material in distance education. The value of  $t$ -test was 0.046, which lie in critical region. Therefore, the null hypothesis  $H_01$  in this regard was accepted at 0.05 level of significance.

Table 2 Opinion about nominal cost of printed material

University	Mean	$t$ - cal value
AIOU	3.36	8.170
SUIT	2.60	

As shown in Table 2 there is significant difference between the responses of AIOU and SUIT students in the area of availability of instructional material at nominal cost. The mean scores for AIOU and SUIT were 3.36 and 2.60 respectively. The value of  $t$ -test was 8.170, which lie in rejection region. Therefore, the null hypothesis  $H_02$  in this regard was rejected at 0.05 level of significance. This showed that AIOU provided instructional material to its students on nominal cost as compare to SUIT.

Table 3 Opinion about writing style of the printed material

University	Mean	$t$ - cal value
AIOU	3.71	2.230
SUIT	3.55	

As shown in Table 3 there is significant difference between the responses of AIOU and SUIT students in the area of writing style used in instructional material (study guides). The mean scores of AIOU and SUIT were 3.71 and 3.55 respectively. The value of  $t$ -test was 2.230, which lie in rejection region. Therefore, the null hypothesis  $H_03$  in this regard was rejected at 0.05 level of significance. This proved that AIOU instructional material ( study guides) had better and appropriate writing styles as compare to SUIT study guides at this level of program.

Table 4 Opinion towards learning skills

University	Mean	<i>t</i> - cal value
AIOU	3.87	0.321
SUIT	3.85	

As shown in Table 4 there is no significant difference between the responses of AIOU and SUIT. The mean scores of AIOU and SUIT were 3.87 and 3.85 respectively. The value of *t*-test was 0.321, which lie in critical region. Therefore, the null hypothesis  $H_0$  in this regard was accepted at 0.05 level of significance. This showed that AIOU and SUIT students had positive attitude toward the instructional material and it was most suitable and helpful in the improvement of their learning skills.

### ***Discussion and Conclusion***

This study was taken to compare the M.Ed students responses with print based instructional material offered through distance education by AIOU and SUIT. From the results of Table 1 it is notable that learners of both universities showed high acceptance with the importance of instructional material. They considered that instructional material at this level of program was important for them, because it help them to continue their study individually at their own pace, place and time.

There was no significant difference exist between the responses of all the M.Ed students as the *t*-test calculated value was 0.046 which lie in critical region. This proved that respondents of both AIOU and SUIT had positive views regarding the importance of towards instructional material. As Hampton, (2002) stated that "for open and distance learners the most frequently used material for instruction is print-based instructional material of step-by-step procedures".

The other finding of this study determined that there was availability of instructional material at nominal cost for AIOU students. The mean score of AIOU (3.36) was higher as compare to mean score (2.60) of SUIIT. The *t*-test calculated value 8.170, which lie in rejection region which also confirmed that there was significant difference between M.Ed student's responses of both the universities. This showed that AIOU provided instructional material to its students on nominal cost as compared to SUIIT.

Both universities developed study guides for their students to carry out their studies at their own and without the support of the tutors. The finding of the study showed that there was significant difference between the responses of the students. The *t*-test calculated value was 2.230, which lie in rejection region. This proved that AIOU study guides had appropriate writing styles and there was simple use of language as compared to SUIIT study guides.

As the main objective of using the instructional material is to support and enhance the learning skills at distance. This objective cannot be achieved if distance learners are not satisfied with the instructional materials.

The findings of the study proved that learners of both AIOU and SUIIT were in favour that instructional material helps them to improve their learning skills independently at their own pace and time. The mean scores of AIOU and SUIIT were 3.87 and 3.85 respectively. This also showed that respondents had positive attitudes toward the importance of instructional material and there was no significant difference between their opinions.

In this study the measure of actual usage of the print-based instructional material by students of M.Ed program was subjective and based on the opinion of the respondents through

five-point Likert scale questionnaire. Therefore it is concluded that students of M.Ed program are in favour of the importance of instructional material and instructional also improved their learning skills. It is recommended that the writing style of instructional material may be improved and organized in logical sequence so that every distance learner can easily understand at his own pace, time and without the support of his/her tutor.

### ***References***

- Ahmad, M. (2008). *Comprehensive dictionary of education*. Delhi: Nice Printing Press.
- Daniel, J. S. (1996). *Mega-universities and knowledge media: Technology strategies for higher education*. London: Kogan Page.
- Gay, L.R. (2005). *Educational Research: Competencies for analysis and application (5<sup>th</sup> e.d)*.Islamabad: National Book Foundation.
- Grix, J. (2004). *Foundations of Research*. New York: Palgrave Macmillan.
- Hampton, C. (2002). *Teaching practical skills*. In A. K. Mishra & J. Bartram (Eds.), *Perspectives on distance education: Skills development through distance education* (pp. 83–91). Vancouver, Canada: Commonwealth of Learning. Retrieved from [http://www.col.org/SiteCollectionDocuments/Skills\\_Chapter09.pdf](http://www.col.org/SiteCollectionDocuments/Skills_Chapter09.pdf)
- Jumani, N.B, Shahinshah B. K & M. A. Hussain. (2010). Experiences and tensions of tutoring at Allama Iqbal Open University (AIU) Pakistan: *The Turkish Online Journal of Distance Education*: Vol.10 (2).

- Lockwood, F. (1997). *Open and distance learning today*. London: and New York.
- Portway, P. & Lane, C. (2002) *Guide to teleconferencing and distance e-learning*.
- Race, P. (1994). *The open learning handbook: promoting quality in designing and delivering flexible learning (2nd ed)*. London: Page Ltd
- Rashid, M. (1998). *Distance education: Concepts and methods*. Islamabad:
- Reddy, G.R et al. (1995). *Open University: The ivory towers thrown open*. New Delhi:
- Rowntree, D. (1997). *Preparing materials for open distance and flexible learning*. London: Kogan Page.
- Schwab, D. P. (1999). *Research methods for organizational studies*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Sckaran, U. (2003). *Research methods for business (4th ed)*: A skill building approach. New York: John Willey and Sons.
- SUIT. (2012). Report of *mass education/ correspondence programs*. Retrieved September 16, 2012 from [http://suit.edu.pk/admissions/?page\\_id=28](http://suit.edu.pk/admissions/?page_id=28).
- SUIT. (2012). *Information booklet of Sarhad University of Science and Information Technology*. Department of Mass Education. Islamabad.

Swales, C. (2000). *Knowledge series: Editing distance education materials*. Vancouver, BC: Commonwealth of Learning.

Thorndike, R. M & Tracy, T. C (2012) *Measurement and evaluation in psychology and education (8th e.d)*: New Delhi, PHI learning private limited.