Training Programmes for Distance Education Professionals: An Analytical Assessment

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ABSTRACT

Present paper seeks to analyze the impact of training programmes on distance education professionals of Indira Gandhi National Open University, (IGNOU). The objective of the paper is to identify the training needs of Distance Education Professionals to manage distance education affairs of IGNOU, to evaluate the effectiveness of existing training programmes, to develop a feasible training and professional development model for distance education Professionals (DEPs) and to suggest initiatives in existing training for the skill development of DEPs for effective career growth and development. Attempt has been made to apply statistical tools such as skewness, kurtosis, regression and correlation on a different set of variables to assess the impact of the training programmes on DE professionals such as teachers and academics. While addressing the objectives of the study it is revealed that some of the indicators have opened up scope for improvement. Nevertheless trainees have expressed mixed reaction on the quality of training programmes with respect to content, methodology and effectiveness. Based on the analysis a workable training model has also been suggested where emphasis on the Common Training Approach (CTA) has been given besides, work specific training. For the over all professional development of DEPs a suitable training strategy has been worked out which ensures training at different strata that includes primary, secondary & tertiary level considering the experience & job requirements of the professionals.

Keywords: Training, Distance education professionals, Teachers & Academics

BACKGROUND

Training plays crucial role in shaping the skills of professionals, which ultimately benefits the organization in terms of available skilled human resources for diffusion of knowledge thereby providing effective support services to the learners. Open and Distance Learning (ODL) system in the world is relatively new and most of the manpower involved in design, development
and delivery of programmes were mainly drawn from the conventional system. Though there are a large number of ODL institutions, which provide fulltime or on-the-job training for their staff, interestingly, however, there don't seem to be many prominent examples of institutions which use ODL for staff training and development. However, Indira Gandhi National Open University (IGNOU) India has developed programmes on distance education (DE) and so is Community Development Employment Project (CDEP), South Africa. CDEP has succeeded in modeling good ODL practices and promoting a learner centric approach while imparting training to its functionaries. Not surprisingly, isolated and remote learners of DE institutes have also experienced problems with regards to delivery of the support services, reflection of their grades in the award sheets, receipt of posts that contains self-instructional materials and other related documents, as a result they could not complete the programme in time. Though, the number of such incidences is very limited, and their impact is also negligible considering the number of learners pursuing programmes through ODL system, however, it has definitely drawn the attention of both learners and managers. It is also appropriate to mention that the providers of DE are well aware in addressing these issues and improving the quality and usefulness, as well as the recognition and reward offered to those who complete it successfully. Nevertheless ever increasing number of learners and learner support centres has demanded the skilled manpower for the management of the vast network (Nonyongo & Kuhn, n.d.).

Considering the qualitative aspects of programme delivery, proper shaping of the professionals is necessary and that can be determined through the assessment of training imparted for Distance Education Professionals (DEPs). Training is necessary to cope up with the ever increasing pressure of learners who in turn demand for effective support services, design and development of quality course material, production and telecast of quality audio/video programmes to supplement the pursuit of learners to discover viable alternative mode of learning. In the present paper an attempt has been made to analyse the training imparted to DEPs and to suggest a viable model of training in order to enhance the skill of these professionals. In order to augment the study suitable questionnaires were developed and administered among the teachers and academics, associated with the delivery of the programmes. The paper also reviews the literature pertaining to training and professional development of DEPs.

The ODL system is relatively new and it is found that there is not enough literature on staff development. The literature review raises the question whether ODL is an underused approach to training. The UKOU, for example, doesn’t use ODL for staff development (Sewart, 1998, 149). Lentell’s regular staff development column in Open praxis for 10 years from 1993 never examined it, though she took some swipes at the cookbook approach to training manuals. Rather few of the contributors to Latchem & Lockwood (1998) deal with ODL as a tool for staff development. An exception is Gunn & Panko, who describe a staff development course using self-study.

Programme/Course materials developers need to be enabled to develop programmes which encourage deep and autonomic learning and which are culturally and linguistically appropriate. Tutors and counsellors need to acquire new student-centred approaches to teaching and learning and develop their diagnostic, problem-solving and inter-personal skills in assisting culturally diverse students. Planners, policy makers, managers and administrators need
to be given the knowledge and ability to provide and evaluate relevant support systems for staff development (Randell & Bitzer, 1998: 141).

Lentell (1994) identifies an important apprehension between what tutors and managers look for in staff development. On the one hand, practitioners’ demand the development of a professional learning community, i.e. a learning organization, on the other, distance education managers have seen their major task as to brief and train tutors in a new mode of delivery and not to encourage ongoing learning. Failure to address this contradiction will lead to a cynicism among staff and a sense that the language of staff development is merely empty rhetoric. Arora and Pandey (1998) described changes required for distance teacher training facilities in India, and a case for using communication technologies to train a huge number of teachers in schools. Trentin and Scimeca (1999) described an Italian pilot project that studied the use of Information and Communication Technologies (ICT) for in-service teacher training for online distance education courses.

Mishra (2004) while criticizing the 'in-service training' emphasizes that people join the ODL System without having the inclination and attitudes appropriate to it. In such a situation any amount of 'in-service' training makes no difference in their approaches. These groups of teachers are actually more concerned about their subject knowledge and erosion of their academic powers and authority through the approaches of ODL system. Such teachers fail to see the value of learning design and thus are more vociferous against training (in-service) criticisms notwithstanding. There are some evaluation studies (Murthy & Ramanujam, 1997; OL, 1998; Ramanujam, 1999; Murthy, 2004) that report positive impact of these training programmes. It is generally felt that a 'pre-service' training model might be more appropriate along with the continuing professional development model of staff development. Koul (1990) also supports the 'pre-service' training in distance education. Panda, (2004) points out that training must be seen in the form of continuing professional development (CPD), and that CPD must contribute to continuing critical reflection, and to individual development, besides institutional growth and development. Besides the continuing professional development model of induction-orientation-refresher a specialized training, IGNOU also organizes training in other modes as well. With its responsibility to maintain the standards of distance education in the country, Staff Training and Research Institute of Distance Education (STRIDE) is actively involved in organizing training programmes at national, regional, and institutional level. The national level programmes are mostly organized at the headquarters (Mullick, 1997).

Training programmes are also organized at Distance Education Institutions and State Open Universities on their request. As more and more institutions receive grants from the Distance Education Council (DEC), this type of training programme has been on the increase. Post Graduate Diploma in Distance Education (PGDDE) and Master of Arts in Distance Education (MADE) are the two programmes offered by IGNOU to train the professionals in the field of ODL, covering wide range of topics including use of communication technology. The Karnataka State Open University (KSOU) under this programme transformed its learning materials for the masters’ programmes/ courses successfully.

Other organizations adopting such a model are UP Rajarshi Tandon Open University, Allahabad and Tamil Nadu Open University, Chennai. STRIDE/IDC, Schools of Studies and DEC collaboratively undertake such an exercise. M S
Yadav and S K Panda in their paper entitled "Higher Education and Professional Development" referred that it is well recognized that teachers have multiple roles to perform viz-a-viz teaching, research, development of learning resource material, extension and managing the institution for which integrated and coordinated programmes for professional development of teachers are considered necessary.

**METHODOLOGY**

In the present research two types of questionnaires were developed for teachers and academics working at IGNOU headquarters and its Regional Centres across the country for collection of primary data on wide range of issues pertaining to type of training, duration, content, style, usefulness, adequacy, methodology and number of training programmes attended and to what extent these training programmes were relevant and useful in day to day functioning. Secondary Data was collected from various published sources.

Method of stratified sampling technique has been applied. The samples for the research study were selected from among the two different strata of academics and teachers. Therefore, the questionnaires were dispatched to the professionals through post, email and more than 100 professionals were personally contacted as a result 113 professionals who have responded the questionnaire in writing were covered in the sample, which accounts for 42.16 percent of the total professionals of different categories working in the University. Out of 113 professionals 87 have obtained formal Post Graduate Diploma in Distance Education offered by IGNOU. Similarly among the surveyed professionals 71 were male and remaining female. Similarly 13 were senior teachers and academics, 56 middle level and remaining junior level professionals. So far as experience and length of service of the professionals is concerned, 36.28 percent professionals were having experience of more than 15 years followed by 29.20 percent professionals having experience 5-10 years. The maximum numbers of teachers who have responded questionnaire were having more than 15 years of experience where as in case of academics the maximum respondents were from the service length of 5-10 years.

Data was classified in cross tables and multivariate tables & mathematical and statistical tools such as correlation, regression, kurtosis, and skewness were applied to draw the conclusion.

**Kurtosis was calculated from the following equation:**

\[
\left\{ \frac{n(n+1)}{(n-1)(n-2)(n-3)} \sum \left( \frac{x_i - \bar{x}}{s} \right)^4 \right\} - \frac{3(n-1)^2}{(n-2)(n-3)}
\]

where : \( s \) is the sample standard deviation.

Kurtosis refers to the degree of flatness or peakedness in the region about the mode of a frequency curve. The degree of kurtosis of a distribution is measured relative to the peakedness of a normal curve. If a curve is more peaked than the normal curve it is called 'leptokurtic'; if it is more flat-topped than the normal curve it is called 'platykurtic' or flat-topped. The normal curve itself is known as 'mesokurtic'.

**Skewness was calculated by using following equation:-**

\[
\frac{n}{(n-1)(n-2)} \sum \left( \frac{x_i - \bar{x}}{s} \right)^3
\]
In a positively skewed distribution mean is greater than the mode and the median lies somewhere in-between mean and mode. A positively skewed distribution contains some values that are much larger than the majority of other observations. In a negatively skewed distribution mode is greater than the mean and the median lies in-between mean and mode. The mean is pulled towards the low-valued item (that is, to the left). A negatively skewed distribution contains some values that are much smaller than the majority of observations.

**Correlation coefficient** can be calculated from the following equation:- where

\[
\rho_{x,y} = \frac{\text{Cov} (X, Y)}{\sigma_x \cdot \sigma_y}
\]

and

\[
\text{Cov} (X, Y) = \frac{1}{n} \sum_{i=1}^{n} (x_i - \mu_x) (y_i - \mu_y)
\]

The value of the coefficient of correlation as obtained by the above formula shall always lie between ± 1. When \( \rho_{x,y} = +1 \), it means there is prefect positive correlation between the variables. When \( \rho_{x,y} = -1 \), it means there is perfect negative correlation between the variables. When \( \rho_{x,y} = 0 \), it means there is no relationship between the two variables. However, in practice, such values of \( \rho_{x,y} \) as +1, -1, and 0 are rare.

We normally get values which lie between +1 and -1 such as 0.8, 0.4, etc. The coefficient of correlation describes not only the magnitude of correlation but also its direction. Thus, + 0.8 would mean that correlation is positive because the sign of \( \rho_{x,y} \) is + and the magnitude of correlation is 0.8.

**Regression** equation between x and y can be expressed as

\[y = a x + b\]

Where \( b = \text{constant} \) and \( a = \text{coefficient of } x\)

In this equation a and b are two unknown constants (fixed numerical values) which determine the position of the line completely. These constants are called the parameters of the line. If the value of either or both of them is changed, another line is determined. The parameter 'b' determines the level of the fitted line (i.e., the distance of the line directly above or below the origin). The parameter 'a' determines the slope of the line, i.e., the change in y for unit change in x. By using the equations stated above on data thus collected efforts were made to address the following objectives of the study:

- To identify the training needs of Distance Education Professionals to manage distance education affairs of IGNOU;
- To evaluate the effectiveness of existing training programmes of IGNOU for DEPs;
- To develop a feasible training and professional development model for DEPs;
- To suggest initiatives in existing Training for the skill development of DEPs for effective career growth and development.
TRAINING PROGRAMMES FOR TEACHERS AND ACADEMICS

In order to enhance the skills of the professional, IGNOU has organized about 50 training programmes for teachers and 22 for academics. These training programmes were of different nature in terms of content and duration. The duration of training programmes varies from one day to fifteen days depending on the nature and content of the training programme. Broad topics covered in the training programmes includes editing the material, script development, course preparation, script writing for audio-video programmes, television presentation, presenters workshop, workshop on evaluation, intensive workshop on assignment across the discipline, international course designing, format editing, orientation programme on distance education, workshop on self instructional material, programme specific script writing workshop, multi media training programme, IT trap training programme, orientation programme for newly recruited faculty members, induction programme for faculty members, workshop on e-commerce, e-mail workshop and interactive meeting, workshop on e-mail and MS outlook, workshop on e-learning and e-mail training, revising self instructional material, workshop on e-commerce, basics of rdbms, oracle and odlims, workshop on web ct and e-learning and art of video presentation.

The teachers reported that these programmes were very useful and informative and they have derived expected benefits from these programmes. However it has been realized that the training programmes should be conducted more frequently depending on the needs of the teachers. IGNOU also organizes training programmes for the academics working at its Headquarters and Regional Centres spread across the country. It may also be noted that duties and responsibilities of the academics are diversified in nature as all academic activities initiated by the university regarding implementation of programmes are primarily carried out by the academics at the grass root level. It is revealed that training programme organized for the academics were mainly of short duration.

The training programmes already organized by the university are orientation programme for newly recruited ARD’s on administrative and financial procedures, conduct of Extended Contact Programmes, student registration and evaluation, multi-media training programme, conduct of interactive radio counseling, induction programme for academics, workshop on e-commerce, e-mail training cum interactive meeting, e-mail and MS outlook, e-learning, training programme on tele-conferencing moderator and facilitator, Workshop on Satellite Down Links for Distance education, oracle based training programme and teleconferencing facility based understanding. The training programmes for the academics were very useful and more such programmes would enhance the skills of the academics.

ANALYSIS OF TRAINING PROGRAMMES

Information on a large number of variables thus collected were analyzed for the academics and teachers respectively. The academics have rated various issues pertaining to training on parameter A to O on five point scale. The majority of academics have rated these parameters as very good and good on five point scale, which indicates that the training imparted by the university has adequately addressed the professional needs of the participants. For in-depth analysis a comparison of various parameters such as educational
administration (A) and monitoring (D) has been carried out. Statistical tools were applied to analyze the result of two variables A and D in order to assess whether a relationship could be established between educational administration and monitoring as monitoring of various activities by the academics placed at various Regional Centres across the country is very important and crucial for the effective management of DE Programmes in IGNOU. Table also indicates that the responses of the academics are satisfactorily represented across the parameters.

Table: 1
Rating of Academics on Various Aspects of Training

<table>
<thead>
<tr>
<th>Option</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>V. Good</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>62</td>
<td></td>
</tr>
<tr>
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<td>6</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>6</td>
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<td>4</td>
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<td>6</td>
<td>59</td>
</tr>
<tr>
<td>Average</td>
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<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>29</td>
</tr>
</tbody>
</table>

A=Educational Administration, B= Student Support, C=Supervision and Maintenance of Study Centres, D=Monitoring, E=Staff Development, F=Survey and Research Activities, G=Development of Self Instructional Material, H=Admission, I=Examination, J=Teleconferencing, K=Interactive Radio Counselling, L=Gyan Vani, M=Tele – Learning Centre Activities, N=Maintenance of database, and O=SFinancial & Administrative Matters

In order to carry out indepth analysis result of the statistical tools applied were analysed and presented below:

Skewness 0.928076, Kurtosis -0.19767, Correlation 0.44222
(A&D) (A&D) (A&D)

The above values clearly indicate that improvement is required in the quality of training as the value of skewness is 0.928076 for A and D. Similarly the value of Kurtosis is -0.19767 and correlation 0.44 also indicates that training imparted has positive impact on the participants but the scope for improvement is desirable. The result of correlation is positive but not highly positive. The application of above analysis on the whole range of data has also been applied which indicates similar result with a slight variation. Considering the number of attributes analysed in the analysis the variation is very significant as it also supports our analysis discussed above.

Kurtosis -0.39417, Skewness 0.58638
(complete table –1) (complete table –1)

Regression Output (A&D)
Constant 1.298246
Std Err of Y Est 2.599483
R Squared 0.195558
No. of Observations 5
Degrees of Freedom 3
X Coefficient(s) 0.464912
Std Err of Coef. 0.544402
Table: 2
Responses of Academics on Various Parameters

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>V.Good</th>
<th>Good</th>
<th>Average</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>12</td>
<td>38</td>
<td>29</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Density</td>
<td>2</td>
<td>33</td>
<td>44</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Style</td>
<td>13</td>
<td>27</td>
<td>43</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Language</td>
<td>2</td>
<td>48</td>
<td>31</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Pr. Aspect</td>
<td>11</td>
<td>69</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adequacy</td>
<td>7</td>
<td>72</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Educational</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Administration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Support</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Supervision</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skewness 2.055438  Kurtosis 3.626143
(whole table –3) (Whole table –3)

While applying the regression analysis with respect to educational administration (A) and monitoring (D), we can interpret that D is monitored with respect to A with a evaluated error of 0.195558 for educational administration with 3 changing values depending upon the existence of trainees/training indicates that the monitoring is adequate and training in educational administration is also upto the mark. This indicates that the training met the requirement of the participants. Therefore, the academics were satisfied with the training imparted to them on educational administration and monitoring.

While correlating these variables the coefficient of correlation for two sets of variables have been computed and the result for content to density (0.89), content to style (0.86), content to language (0.97), density to style (0.95), density to language (0.89), style to language (0.79), practical aspect to adequacy (0.99), educational administration to student support (0.59), educational administration to supervision & maintenance (0.21), educational administration to monitoring (0.44), student support to supervision & maintenance (0.71), student support to monitoring (0.86) and supervision & maintenance to monitoring (0.50) are positive which indicates that these variable are positively correlated and the training has positive impact on the participants.

The regression output between the content and density has been analyzed and an evaluated error (R squared) of 0.79 has been computed which is on higher side. This indicates that the content and density of the training programmes has not addressed adequately resulting in dissatisfaction among the trained professionals.

Similar results were also obtained for the content and style where evaluated error (R Squared) is 0.74, which also indicates that it was not upto, the mark. The evaluated error (R squared) for content and language is 0.94, density and style is 0.89, density and language is 0.79 is also on the higher side indicating that training on these aspects were also not upto the mark. On the other hand
evaluated error (R Squared) for style and density is 0.62 can be considered satisfactory and therefore the quality of training was average. The evaluated error (R Squared) calculated for educational administration and student support services (0.35) indicates that training was highly satisfactory for the academics on these parameters.

### Table: 3
Regression Output on Various Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Content and Density</th>
<th>Content and Style</th>
<th>Content and Language</th>
<th>Density and Style</th>
<th>Density and Language</th>
<th>Language and style</th>
<th>Practical Aspects and Adequacy</th>
<th>Designing and Planning of Programmes and Delivery of SIM</th>
<th>Development of Self Instructional Material and Delivery of Programmes</th>
<th>Development of SM and Rel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.20</td>
<td>6.01</td>
<td>4.13</td>
<td>-0.47</td>
<td>0.96</td>
<td>2.02</td>
<td>5.49</td>
<td>2</td>
<td>6.13</td>
<td>5.19</td>
</tr>
<tr>
<td>Std Err of Y Est</td>
<td>14.6</td>
<td>17.92</td>
<td>11.09</td>
<td>4.54</td>
<td>6.66</td>
<td>8.16</td>
<td>8.03</td>
<td>4.09</td>
<td>3.31</td>
<td>3.29</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.86</td>
<td>0.80</td>
<td>0.92</td>
<td>0.99</td>
<td>0.97</td>
<td>0.96</td>
<td>0.06</td>
<td>0.80</td>
<td>0.16</td>
<td>0.17</td>
</tr>
<tr>
<td>No. of Observations</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<td>5</td>
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<tr>
<td>Degrees of Freedom</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>X Coefficient(s)</td>
<td>0.89</td>
<td>0.88</td>
<td>0.91</td>
<td>1.01</td>
<td>0.97</td>
<td>0.94</td>
<td>1.11</td>
<td>0.80</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>Std Err of Coef.</td>
<td>0.20</td>
<td>0.25</td>
<td>0.16</td>
<td>0.07</td>
<td>0.09</td>
<td>0.11</td>
<td>0.06</td>
<td>0.23</td>
<td>0.19</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Similar results were also obtained for educational administration and supervision & maintenance (0.04), educational administration and monitoring (0.2), student support services and supervision & maintenance (0.5) and supervision & maintenance and monitoring (0.25), indicates that training was highly satisfactory on these parameters.

### Table: 4
Rating of Teachers on Various Aspects of Training

<table>
<thead>
<tr>
<th>Option</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>12</td>
<td>13</td>
<td>17</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
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<td>V.Good</td>
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<td>18</td>
<td>17</td>
<td>14</td>
<td>18</td>
<td>9</td>
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<td>5</td>
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<td>2</td>
<td>2</td>
<td>4</td>
<td>129</td>
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<tr>
<td>Good</td>
<td>23</td>
<td>17</td>
<td>19</td>
<td>12</td>
<td>18</td>
<td>18</td>
<td>9</td>
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<td>9</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>167</td>
</tr>
<tr>
<td>Average</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>9</td>
<td>11</td>
<td>11</td>
<td>6</td>
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<td>4</td>
<td>6</td>
<td>7</td>
<td>11</td>
<td>8</td>
<td>103</td>
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<tr>
<td>Poor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>85</td>
</tr>
</tbody>
</table>

Analysis with respect to the teachers of the University was also carried out. In the above table an attempt has been made to correlate designing and planning of programmes/courses (A) with development of self instructional material (B). The following result has been obtained after application of statistical tool:

Skewness - 0.00216, Kurtosis - 1.26963, Correlation 0.896968
(A&B) (A&B) (A&B)
Combined Kurtosis -0.29773 Combined Skewness 0.617207
(Whole table - 4) (whole table - 4)

The above results clearly indicates that qualitative improvement is required in the quality of training as the result of skewness is -0.00216. Similarly the value of kurtosis is -1.26963 which also indicates that proper training was not given for design & planning of programmes/courses and development of self Instructional material. However highly positive correlation (0.896), has been recorded between the two variables which indicates that the impact of training will influence both the indicators. On the other hand the application of these tools on the whole range of data has been computed and combined value for kurtosis -029773 and skewness 0.6117202 indicates that improvement is required in quality of training.

Regression Output (A&B)
Constant 2
Std Err of Y Est 4.093459448
R Squared 0.80455198
No. of Observations 5
Degrees of Freedom 3
X Coefficient(s) 0.807692
Std Err of Coef. 0.229839

Table: 5
Responses of Teachers on various indicators

<table>
<thead>
<tr>
<th>Grading Indicators</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Average</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>74</td>
<td>81</td>
<td>59</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Density</td>
<td>53</td>
<td>82</td>
<td>74</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td>Style</td>
<td>47</td>
<td>87</td>
<td>74</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Language</td>
<td>57</td>
<td>85</td>
<td>64</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Pr. Aspect</td>
<td>49</td>
<td>154</td>
<td>24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adequacy</td>
<td>40</td>
<td>171</td>
<td>16</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Designing &amp; Planning of Programmes/courses</td>
<td>12</td>
<td>13</td>
<td>23</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Development of Self Instructional Material</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Delivery of the Programmes</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Research</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>12</td>
</tr>
</tbody>
</table>

While analyzing the regression analysis with respect to designing and planning of programmes/courses (A) and development of self Instructional material (B), we can interpret that B is monitored with respect to A with a evaluated
error of 0.80455198 with three (3) changing values of the parameters depending upon the existence of trainees/training indicate that the training was not up to the mark and more efforts are required while imparting training on these aspects. This also indicates that the teachers were not satisfied with the content and quality of the training programmes.

While correlating these variables the result of coefficient of correlation for two variables such as content to density (0.92), content to style (0.89), content to language (0.96), density to style (0.99), density to language (0.99), style to language (0.98), practical aspect to adequacy (0.99), designing and planning of programmes/courses to development of self instructional material (0.89) are highly positive.

Table: 6
Regression Output on Various Indicators for Teachers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Content and Density</th>
<th>Content and Style</th>
<th>Content and Language</th>
<th>Density and Style</th>
<th>Density and Language</th>
<th>Language and Style</th>
<th>Practical Aspects and Adequacy</th>
<th>Designing and Planning of Programmes/Courses and Delivery of SIM</th>
<th>Development of Self Instructional Material and Delivery of Programmes</th>
<th>Development of SIM and Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.20</td>
<td>6.01</td>
<td>4.13</td>
<td>-0.47</td>
<td>0.96</td>
<td>2.02</td>
<td>5.49</td>
<td>2</td>
<td>6.13</td>
<td>5.19</td>
</tr>
<tr>
<td>Std Err of Y Est</td>
<td>14.6</td>
<td>17.92</td>
<td>11.09</td>
<td>4.54</td>
<td>6.66</td>
<td>8.16</td>
<td>8.03</td>
<td>4.09</td>
<td>3.31</td>
<td>3.29</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.86</td>
<td>0.80</td>
<td>0.92</td>
<td>0.99</td>
<td>0.97</td>
<td>0.96</td>
<td>0.06</td>
<td>0.80</td>
<td>0.16</td>
<td>0.17</td>
</tr>
<tr>
<td>No. of Observations</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>X Coefficient(s)</td>
<td>0.89</td>
<td>0.88</td>
<td>0.91</td>
<td>1.01</td>
<td>0.97</td>
<td>0.94</td>
<td>1.11</td>
<td>0.80</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>Std Err of Coef.</td>
<td>0.20</td>
<td>0.25</td>
<td>0.16</td>
<td>0.07</td>
<td>0.09</td>
<td>0.11</td>
<td>0.06</td>
<td>0.23</td>
<td>0.19</td>
<td>0.20</td>
</tr>
</tbody>
</table>

On the other hand designing and planning of programmes/courses to delivery of the programmes (0.40) and development of self instructional material to delivery of the programmes (0.41) are positive and designing and planning of programmes/courses to research (-0.35), development of self instructional material to research (-0.60) and delivery of the programmes to research (-0.44) are negative. This indicates that due attention was not paid on research while designing and planning programmes and delivery of programmes.

The regression result between the content and density shows an evaluated error (R squared) of 0.86 which is on higher side and therefore it can be concluded that the content and density of the training programmes were not upto the mark.

The evaluated error (R Squared) for content and style 0.803709 indicates that these parameters were also not given due attention in the training programmes organized by the university. The evaluated error (R squared) for content and language (0.919114), density and style (0.987396) is also on higher side which
also indicates that due attention have not been given in the training programmes on these parameters.

The evaluated error (R Squared) was computed for various variables i.e. density and language (0.956298), style and language (0.970851), practical aspect and adequacy (0.990691) and design and planning of programmes/courses and development of self instructional material (0.804552) are also on higher side indicating that training was not upto the mark.

The evaluated error (R squared) for designing and planning of programmes/courses and delivery of the programmes is 0.161412, designing and planning of programmes/courses and research is 0.126819, development of self instructional material and delivery of programmes 0.173299, development of self instructional material and research 0.36746 and delivery of the programmes and research is 0.193671.

These values of evaluated error indicates that the training imparted to the teachers was upto the mark and due attention was paid by the trainers while designing and developing training programmes.

**TRAINING REQUIREMENTS OF DE PROFESSIONALS: INDICATIVE INTERVENTIONS**

*Training Model:* Considering the nature of job of the professionals a Common Training Approach (CTA) has been suggested while imparting training on various aspects. Areas to be covered in the training programmes are given in the figure-1. As discussed earlier two types of professionals are primarily engaged in the delivery of programmes through distance mode of learning.

Most of the professionals drawn for design and delivery of the programmes have background of conventional system and not familiar with the distance mode of learning. Therefore training at the entry level is very important and crucial. University has made sincere efforts to impart training to the professionals by designing two programmes i.e. PGDDE and MADE.

In the initial phase the attainment of PGDDE was made compulsory for the teachers and academics within the two years of their joining the university and incentive of one increment was granted on completion of PGDDE. Now this qualification has been relaxed and it is not compulsory for the teachers and the academics, however, they are encouraged to pursue the course and on successful completion one incentive increment are granted to them.

This scheme has been extended to all the employees of the university. Since ODL has captured momentum in the recent time and it is expected that 1/3 of the total learners are likely to seek admission through ODL, therefore the services of trained professionals are essential to manage the programmes of ODL. Since the present strategy of human resource development is purely ad-hoc, therefore concentrated efforts are required to train the professionals in ODL by developing suitable model.
Common Training Priority

- Educational Administration
- Student Support
- Staff Development
- Delivery of the Programmes
- Examination
- Teleconferencing
- Interactive Radio Counseling (Gyan Vani)
- Survey and Research
- Maintenance of database
- Financial & Administrative Matters
- Tele-Learning Centre Activities
- Development of Self Instructional Material

Profession Specific Training

**Teachers**
- Designing and Planning of Programmes/Courses
- Development of Instructional Manuals
- Preparation of A/V Programmes
- Maintenance of Programmes
- Research

**Academics**
- Establishment of Student Support Centres
- Management of Student Support Centres
- Issues pertaining to Admissions
- Monitoring of Academic, administrative & financial matters
As a part of training strategy it is suggested that induction training should be organized for both the categories of professionals. It may also be noted that though some of the activities identified are common to both categories of professionals, however the responsibilities are different at different level.

For instance in the conduct of examination the teachers are involved in the preparation and moderation of question papers, at the same time the academics are primarily engaged in monitoring of examination activities.

Nevertheless, the role of academics in setting of question paper and its moderation cannot be ruled out totally and vice versa.

Figure: 2

The induction training programme will help the participants to have familiarity with the system of ODL and how the system function in the country to deliver support services to the learners. For enhancing the professional skills at the intermediate level 3 to 5 days workshop cum training programmes should be organized from time to time.

The induction training programme will help the participants to have familiarity with the system of ODL and how the system function in the country to deliver support services to the learners. For enhancing the professional skills at the intermediate level, 3 to 5 days workshop cum training programmes should be organized from time to time.
The aim of the training programmes would be to deliberate and share the operational difficulties and how to cope up with the latest development taking place in the field of ODL so that skilled manpower is placed at the all level to ensure better delivery mechanism.

The objective of the training at the tertiary level is to ensure that quality and standard of ODL in the country is maintained properly. Therefore trained professionals are required to monitor the activities of various open universities in the country. It is suggested that suitably trained professionals are required to be deployed and engaged for such task which can be achieved by organizing 2-3 days training workshop at regular intervals.

These professionals may also be engaged for maintaining the quality of higher education imparted by the DEIs and SOUs throughout the country. The programme delivery of IGNOU should also be brought under its purview.

The professionals can be drawn from various institutions engaged in imparting distance mode of learning. The training programmes should also be supplemented by making PGDDE and MADE mandatory for teachers and academics.

These programmes are very effective and useful for the distance education professionals.

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