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1987

D. A. Kotelawe. (1987). Training needs in the use of media for distance education in Sri Lanka. In AMIC Seminar on Training Needs in the Use of Media for Distance Education, Singapore, Jun 8-11, 1987. Singapore: Asian Mass Communication Research & Information Centre.

<https://hdl.handle.net/10356/91062>

**Training Needs In The Use Of Media
For Distance Education In Sri Lanka**

By

D A Kotelawe

TRAINING NEEDS IN THE USE OF MEDIA IN DISTANCE EDUCATION IN SRI LANKA

Introduction

Free education for all at all levels was adopted as a matter of state policy in Sri Lanka in 1945 and this strand of social policy remains unchanged to date. Consequently the demand for higher education has kept increasing. In the year, 1942, the first University was established in the Island incorporating the Ceylon University College (established in 1926) and the Ceylon Medical College (established in 1870). The University of Ceylon thus established was planned on the " Oxbridge " pattern as a residential institution. The increasing demand for higher education and the inability of the University of Ceylon to cater to this need coupled with socio-political factors led to the granting of University status to two established seats of Buddhist learning in 1958. Thus came into being the Vidyalandara and Vidyodaya Universities (now named the University of Kelaniya and the University of Sri Jayewardene-pura respectively). The expansion of conventional Universities thus begun, went on over the decades, and currently there are eight Universities of the conventional mode distributed over the Island, viz : the Universities of Peradeniya, Colombo, Sri Jayewardene-pura, Kelaniya, Moratuwa, Jaffna, Ruhuna and Eastern.

Eventhough conventional Universities expanded with consequent increases in the investment therein, they still could^{not} cope with the increasing demand for higher education. The External Services Agency (ESA) of the former University of Ceylon established in 1972 was an early consequence of this recognition. The ESA sought to provide for those seeking higher education at University level with opportunities for studying as external students of the University. Its function was merely to register

candidates for established University courses and conduct examinations. Students were registered for Arts, Law, Science, Mathematics, Commerce and Education. The last of these courses was meant for graduate teachers in the Ministry of Education. It was only in this programme that some tuition in the form of printed material was provided. Following figures indicate the numbers registered with the ESA and comparable figures of registration as internal students in the University in the years, 1975 - 1978.

	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
ESA students	8,438	6,664	6,773	9,129
Internal Students	3,185	3,809	4,034	5,058 ¹

In 1976 another Institution, the Sri Lanka Institute of Distance Education (SLIDE) was set up by the Ministry of Education to provide for higher education outside the University structure. The objective of the SLIDE was to provide tertiary level education in the fields of Mathematics, Science, Management and Technical studies to those who were unable to enter institution of higher learning due to socio economic and other reasons. Demand for places in the SLIDE far exceeded places that could be offered. There were 11,000 applicants in 1976 and 16,000 in 1977 : At the time of the absorption of the SLIDE into the newly created Open University of Sri Lanka there was only a total registration of 4892 students.²

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1. Jayawardene W.A., External Services Agency University of Sri Lanka, 1972 - 1978 A Review of an Experiment (Colombo, 1978) Mimeographed p. 17.
 2. Kulshreshtha O.P., Technical Education Experience of the Sri Lanka Institute of Distance Education (Paper presented at the International Seminar on Distance Education, Addis Ababa, 3 - 15th September, 1979) Mimeographed.

Another indicator of the inability of conventional Universities to cater to the increasing need for higher education can be gleaned from the following figures for University admissions with regard to eligibility (meaning procurement of minimum mark for admission to Universities at GCE Advanced Level Examination) and those actually found places for in Universities.

Academic stream	<u>1982/83</u>		<u>1983/84</u>		<u>1984/85</u>	
	eligible	admitted	eligible	admitted	eligible	admitted
Arts	11045	2253	8795	2147	8359	2078
Commerce & Management	11033	720	10386	904	4035	948
Physical Science	3452	1201	1976	1186	1592	1280
Biological Science	6879	1154	5613	1228	3853	1324 ¹

The realisation of the need to expand facilities for higher education for those who could not be provided places in existing institutions, as well as the need to provide for continuing education for those in employment for career development and the need to cater for general lifelong education led educational planners to think in terms of establishing an Open University. Thus the Universities Act, No. 16 of 1978 provided for the establishment of an "Open University for the purpose of providing higher education facilities to those who are not students of any of the Universities, Campuses of Universities, University College or of Institutions recognized for the purpose of providing courses of study approved for the examination of any of the aforesaid Higher Educational Institutions." Accordingly the Open University of Sri Lanka was established by Ordinance in mid 1980. The OUSL has the same autonomous status comparable to other Universities established by the Universities Act of 1978. However, it differs in structure from other Universities in keeping with its special objectives and method of operation.

1. University Grants Commission, Statistical Handbook 1984 Colombo, 1986 p. 29

Programmes of Study offered by the OUSL

The academic programmes of the OUSL are conducted by three Faculties ;

Technology, Sciences and Social Sciences

Following are the programmes conducted ; Current student numbers

Certificate in Pre-School Education	376
Certificate in Entrepreneurship	76
Certificate in Professional English	3000
LL.B. Programme	900
Postgraduate Diploma in Education	2950
Foundation Programme in Science & Tech.	2000
Diploma Programmes in Civil, Mechanical Electrical, Electronic, Communication and Textile Technology	2050
B.Sc. Programme	780

The teaching system of the OUSL

The main medium of instruction in the OUSL is print, or the teaching text. In 1986, over 2000,000 blocks of lesson material were produced by the press of the OUSL. In addition, audio and video material are now beginning to be used as supplementary material.

Two way communication between the teacher and the student is maintained through the device of assignments. Assignment marks form a component of the final assessment of the student.

There is an important component of face to face contacts in the teaching system. The number and frequency of these sessions depend on the particular programme of study. For example in language teaching these contacts tend to be more frequent. Face to face contacts take the form of laboratory practicals, workshop practice, seminars or workshops. In most cases attendance at these sessions is voluntary.

Teaching activities of the OUSL are supported by a network of Regional and Study Centres which function as loci where face to face sessions are held. They also serve as resource centres where study material in print, audio and video are held for use by students.

From the inception of the OUSL, in order to assist with media production a press and an audio-visual unit have been established. A number of copy editors too have been appointed in order to ensure the quality of publishing. Seminars and Workshops too were organised from time to time to initiate the academic staff into the methodologies for production of lesson material for distance study. It was however only in 1986 that an Acting Director of Educational Technology was appointed in order to oversee all these activities and it is only now that an Institute of Educational Technology is being established. The intention here is to provide quality media material to students. The training of staff as well as research in the different areas of instructional technology relevant to distance education too fall within its scope.

From the early days of the OUSL, the Sri Lanka Broadcasting Corporation has beamed a ten minute radio programme once a week in the early evenings. This time slot has been used by the OUSL to broadcast information relating to its educational programme. No instructional material have been broadcast.

However, from the beginning of 1986, the SLBC has granted a half hour time slot in each of its channels - Sinhala, Tamil and English for use by the OUSL. These have been used mainly to broadcast programmes of general education relating to the programmes of study conducted by the OUSL. No attempt has been made so far to broadcast strictly instructional material pertaining to any programme of study. However, a programme in English language teaching accompanied by a text is now being planned.

Audio cassettes to supplement study material in print have been produced more frequently. These are distributed to students as well as to Regional and Study Centres for use in their homes or at these Centres.

Video productions to supplement study material are not meant for home use by students. These are retained at Regional and Study Centres for viewing and study by students.

The need to intergrate print, audio and video material in comprehensive packages is now being increasingly recognized.

Media and their role in distance education

It is necessary to understand the characterising features of distance education in order to understand the role of media therein.

Following are its main characteristics :

1. The learner is at a distance from the teacher for " much, most, or even all of the time during the teaching - learning process ".¹
2. The presence of an educational organization plans and prepares learning materials and provides other supportive services which make distance education different from private study.

1. Holmberg, B. Status and Trends in Distance Education, (Sweden 1985)
pp. 1 - 4 : Keegan, D. The Foundation of Distance Education, (London 1986)
pp. 49 - 50

3. The use of technical media, print, audio, video or Computer in the imparting of instruction.
4. The provision of two way communications between the student and the supporting organization. This communication is mostly based on assignments for submission which are commented upon and returned to the students.
5. The absence of a single continuing learning group throughout the learning process, with the consequence that the student learns primarily by himself.
6. Even though, learning is done in individualised situations, in a distance education system preparation and planning of all educational activities takes on the characteristics of a modern industry. Hence distance education has been termed an industrialised form of education.

The present Seminar is concerned primarily with the third characteristic - namely the all important role of media in distance education and the training of personnel for the same. Apropos this characteristic, distance education has been described as learning supported by " those teaching methods in which, because of the physical separation of the learners and the teachers, the interactive, as well as the preactive phases of the teaching, is conducted through print, mechanical or electronic devices. " ¹

Thus media is all important in a distance education system. From the early days of correspondence education when the print medium was the sole method of instruction this has been so.

1. Moore, M.G. Cognitive style and telemathic (distance) teaching. In IOCE Newsletter 5, 4 pp. 3 - 10, cited in Holmberg, op. cit. p. 1

Media available for distance education

Media available are the following : print, audio including radio, video including broadcast, television, Computers and modern information technology.¹

Print is the oldest medium used in distance education. This is also the medium with which the teachers as well as learners are most familiar. However, there is the need to train conventionally bred academic personnel in the production of truly interactive teaching texts for distance learners. It is known that poorly prepared instructional material is a major cause of student drop out in distance education institutions.

The audio tape has proved to be an extremely effective method of imparting instruction. The audio tape can be combined with slides or the printed texts. Once again the techniques of producing audio tapes need skill and training. The low production costs and easy handling as well as easy accessibility make them extremely attractive as a medium. Radio has been used as a medium of instruction and education for over half a century. However, the fixed times of broadcasts and the difficulty of obtaining suitable broadcast hours has hampered the effective utilisation of radio. Also poor reception in certain areas covered by radio inhibits the use of radio as an instructional medium.

Bates describes television as a powerful and unique teaching medium for its combination of moving image, colour, sound and other qualities which helps teaching in two important ways : first, as a " source of a wide variety of learning material of a kind that would be unavailable to most learners

1. An Introduction to Information Technology in Training and Education.
CET Information Sheet No. 11 March, 1985

in any other way " ; second as it can " assist the process of learning by providing powerful audio-visual images corresponding to certain aspects of cognitive processing. " ¹ However it must be remembered that the reach of broadcast television is extremely limited in third world situations and also the cost of production as well as of use can be quite high. At the Open University of Sri Lanka the strategy adopted is to use video on a selective basis ; where there is television teaching done, the instruction through video is limited to making material available at Regional and Study Centres for students to use.

Computers and information technology too are used in distance education. However, in the Sri Lanka context it is highly unlikely that they will be used in the foreseeable future even though at the OUSL some experimental software has been developed for computers.

Training needs in the use of media

Some work has already been done towards identifying the training needs of distance education personnel by the UNESCO Regional Office for Education in Asia and the Pacific. First was the Seminar on training of personnel for distance education held in Pakistan (8 - 18, August) in 1984. In 1986, there was the Regional Training Workshop on the development, use and evaluation of broadcast materials, held in Pakistan (29 June - 7 July). I intend to utilize the report of the first of these - the Seminar held in 1984 -

1. Bates, A.W. Television and Learning Systems (Distance Education). World Congress in Education and Technology, Vancouver, British Columbia, Canada, May, 1986 p. 3.

in identifying the current training needs in media. The rationale for training personnel in distance education has been correctly stated in the report as follows :

Distance education is an emerging system used as an alternative to or complementing or supplementing the formal system of education. It has had to draw its different personnel from the formal functionaries of the formal system. Since these people happen to have served the formal system for quite some time, they usually tend to stick to and follow the traditions and practices being adopted in that system of education, whereas their manifold roles in distance education demand a considerably different set of skills and techniques. In addition to that, the large variety of tasks and activities in providing education for the off campus learners necessitates the recruitment of correspondingly suitable personnel and then making arrangements for their continuous training/orientation in the areas of their work in distance education. ¹

This report identifies four categories of personnel requiring training :

- a) policy makers, planners administrators and researchers,
- b) personnel relating to production of correspondence materials,
- c) personnel relating to the production of radio broadcasts,

1. Training of Personnel for Distance Education. Report of a Regional Seminar. UNESCO Bangkok (1984) p. 33

d) personnel relating to the production of TV Programmes¹

In view of rapidly changing technology that could be utilized for distance education, a fifth category, i.e. of personnel trained in new information technology may be added here.. Even though the adoption of these technologies is costly and may not be easily accessible to teachers and students of distance learning systems in the developing world, at least an awareness of these must be considered essential for personnel involved in distance study in these countries.

What is significant about the four categories of personnel needing training is that three of them concern media print, audio and video/TV. This underlines once again the crucial importance of media for distance education.

The Seminar report contains six tables identifying the training needs of the four categories of personnel referred to above. Those relevant to media are reproduced verbatim in the appendix for their relevance to this Seminar. Suffice it to give two examples here concerning lesson writing and TV production.

Example 1 (Lesson Writing)

Writer/reviewer	tasks involved
	1. decides format
	2. organises material
	3. develops detailed educational strategie
	4. writes lessons usually in collaboration with other members of course team
	5. supplies ideas/drafts for illustration
	6. reviews drafts
	7. works with reviewers, editors and illustrators until material is ready
	8. tests and evaluates material

1. Ibid

9. reviews proofs
10. prepares feedback questionnaires, pre tests and post tests.

Specific training needs for above -

1. Overview of the distance education system its strengths and weaknesses etc.
2. knowledge of writing/reviewing skills
3. knowledge of target groups and their problems
4. knowledge of content
5. locating resources/materials
6. knowledge of learning process and teaching strategy
7. knowledge of production of materials through Course Team
8. testing and evaluating skills
9. some knowledge of design editing and printing process

Example 2 (personnel in educational television)

Producer

tasks involved

1. develops production ready script
2. selects proper techniques of presentation keeping in view requirements of the original text
3. selects proper comp^{er} and the talent for the programme
4. guides the production staff such as set designers cameramen, sound effects man, special effects man and engineers.

Specific training needs for above -

1. Knowledge about distance education and its various aspects.
2. theory and practice of TV production with special emphasis on the following :
 - a. selection of proper sets
 - b. camera movements (shooting process)
 - c. appropriate formats and techniques in production
 - d. programme editing

A general comment on the above listing of skills needing to be inculcated in the media personnel would be appropriate at the present juncture. It is true that in the case of almost all the personnel ranging from curriculum designers, and writers for distance education to radio producers and their assistants an overview of distance education systems is recommended.

However, it appears that the particular strengths of different media as pedagogic tools are not adequately focussed. Wagner notes with illustrations the usefulness of different media in relation to different learning tasks.¹ Bates, arguing the case for the use of television notes its ability to enhance the learning process by providing powerful audio-visual images corresponding to certain aspects of cognitive processing.²

Thus it appears that an important part of the training in media has to be the focus on the strengths and weaknesses of different media as pedagogic tools. It must also be stressed here that the academic staff of the institutions of distance education have to be given a thorough grounding of the same focus.

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1. Wagner L. The Economics of Educational Media. Hong kong 1982. pp. 15-2
See particularly Table 2.3 Educational Media and Learning Stimuli and Table 2.4 Allan's Chart of Instructional Media in Relationship to Learning Objectives.
 2. Bates, A.W. op. cit. p. 8

The crucial task of training the teachers in the use of media is argued by Wagner thus :

Inadequate software is a key element in the dissatisfaction with the effective use of media in education ; and this inadequacy, it is argued, arises because the teacher's role in the production of this software has not been sufficiently emphasised, either through teachers playing only a minor role in the development of materials or where they play a more significant part, being inadequately trained.¹

Thus the training of the academics in the effective use of media as well as its production is an important task for the success of any distance education system. The academics of the OUSL having come to distance education from conventional systems need this training whether it is in print, audio video or computer and new information technology.

Specific training requirements in the Sri Lanka context.

In common with most distance education institutions, in Sri Lanka too, the personnel in management, academic and media positions are recruited from conventional systems. Hence the first task is to initiate them into the distance education concept. The OUSL has already conducted several workshops for this purpose. An Institute of Educational Technology has been set up recently and it will be one of its tasks to set up a permanent mechanism to conduct workshops on a continuing basis for renewal purposes for those who are already in service and introduce novices to the system.

1. Wagner, op. cit. p. 144

These workshops/seminars will have to focus on all media. However, training needs will be determined by the availability of media to teachers and students alike. Rowntree poses the down to earth question, " Which media do you and your learners have access to: ? " ¹

The most used medium in the OUSL is the print medium, and hence training must emphasise the proper use of this medium. Audio and video are currently used as supplementary media and there is the need to train academics as well as practioners of this medium, as listed in the appendix. Above all there is the need to train academics in the use of an appropriate mix of media depending on the instructional needs of a particular programme of study. Finally there is the need to create at least an awareness of the potential of new information technology among the personnel involved.

Personnel and their training needs

Table 3, Tasks and training needs of personnel relating to
Production of correspondence materials

Personnel	Tasks	Training needs
1. Curriculum designer	<ol style="list-style-type: none"> 1. Assesses distance learners needs 2. Situational analysis 3. Conceptualizes and designs appropriate need-based curriculum 4. Co-ordinates with others 5. Appreciates the role of media, facs to face discussion and practical complements of the curriculum 6. Prepares course outlines 7. Suggests suitable learning experiences and activities 8. Helps in the preparation of 'learning outcomes' 9. Helps in evaluation of curriculum. 	<ol style="list-style-type: none"> 1. Overview of distance education system, its strengths and weaknesses etc. 2. Understanding of needs, resources, constraints etc. of distance education in general and those of the institution in particular 3. Knowledge of target groups and their problems 4. Knowledge of learning experiences and activities etc. 5. Knowledge of teaching strategies 6. Curriculum designing skills 7. Understanding the role of media in distance education 8. Evaluation of curriculum skills
2. Writer/reviewer	<ol style="list-style-type: none"> 1. Decides/adopts format 2. Organizes material 3. Develops detailed educational strategies 4. Writes correspondence lessons, usually in close collaboration with other members of course team 5. Supplies ideas/drafts for illustrations 6. Revises drafts 7. Works with reviewers, editors and illustrators until material is ready 8. Tests and evaluates material 9. Revises/reviews galley proofs from printers 10. Prepares feedback questionnaires pre-tests and post-tests 	<ol style="list-style-type: none"> 1. Overview of the distance education system, its strengths and weaknesses etc. 2. Knowledge of writing/reviewing skills 3. Knowledge of target groups and their problems 4. Knowledge of learning process and teaching strategy 5. Knowledge of content 6. Locating resources/materials etc. 7. Knowledge of production of materials through course team 8. Testing and evaluation skills 9. Some knowledge of design editing and printing processes

Training of personnel for distance education

Table 3 (Continued)

Personnel	Tasks	Training needs
3. Editor	<ol style="list-style-type: none"> 1. Face-editing: format, student-ask layout, print get-up 2. In-depth text editing 3. Collaborates with authors to review content ambiguities and confusions 4. Language editing 5. Checks readability, logical flow, sequencing and presentation of material 6. Checks suitability of illustration: graph making etc. 7. Proof-reading 8. Relates printed text with other media of the system 9. Contacts printers to get the materials printed. 	<ol style="list-style-type: none"> 1. Overview of distance education system, its strengths and weaknesses 2. Knowledge of distance teaching techniques 3. Editing skills 4. Presentation, layout skills 5. Marking-up Manuscript for printing 6. Proof-reading skills 7. Knowledge of different media and their role in teaching 8. Knowledge of printing stages
4. Course Coordinator	<ol style="list-style-type: none"> 1. Schedules and arranges course development, maintenance and renewal activities 2. Briefs external writers 3. Co-ordinates activities of course team 4. Facilitates services to ensure smooth course production 5. Collaborates with course team members 6. Prepares student and tutor guides and other supplementary materials such as assignments, tests, marking guides etc. for materials 7. Arranges review and testing of materials 8. Communicates with students and tutors from time to time 9. Monitors tutors marking of assignments 10. Arranges work methods/material components, if 	<ol style="list-style-type: none"> 1. Orientation in philosophy of distance education 2. Writing skills 3. Co-ordination skills 4. Sound knowledge of subject content and methodology 5. Course production procedures 6. Scheduling, communication 7. Management skills 8. Testing and evaluation

*Personnel and their training needs**Table 3 (Continued)*

<i>Personnel</i>	<i>Tasks</i>	<i>Training needs</i>
5. Tutor/evaluator	<ol style="list-style-type: none"> 1. Corresponds with students 2. Holds face to face sessions 3. Gives prompt, accurate and constructive feedback to students on their progress 4. Marks assignments 5. Sends in results 6. Provides guidance and counselling to students 7. Provides feedback on students problems and procedural difficulties 	<ol style="list-style-type: none"> 1. Know about distance education and its various aspects and tutors role in it 2. Role of evaluator in distance education 3. Knowledge of the subject content 4. Knowledge of programmes, schedules, regional services, facilities 5. Skills in communicating with students 6. Counselling skills 7. Human relationing

Training of personnel for distance education

Table 4 Personnel in educational radio and their tasks and training needs.

<i>Personnel</i>	<i>Tasks</i>	<i>Training needs</i>
1. Script writer	1. Writes scripts in different formats with certain criteria of radio programmes for educational purposes	Knowledge about distance education and its various aspects Theory and practice of radio script writing Basic training in programme production
2. Producer	1. Helps assist and collaborate with the script writer in the development of the script 2. Evaluates a radio script 3. Uses equipment for radio/audio recording 4. Select suitable music and sound effects 5. Selects suitable casts/presenters 6. Leads a recording team 7. Edits radio programmes	Criteria of good radio programmes Principles of script writing Radio recording instruments Music and sound effects Radio casting Radio production Programme editing
3. Programme evaluator	1. Evaluates the impact of the programmes 2. Writes research reports	Knowledge about distance education and its various aspects Programme evaluation and audience research Research report writing
4. Utilizer	1. Utilizes the programmes effectively	Knowledge about distance education and its various aspects Listening in groups Listening individually Pre-activities of listening Post-activities of listening Feedback mechanism

Personnel and their training needs

Table 5 Personnel in educational television and their tasks and training needs.

Personnel	Tasks	Training needs
Producer	<ol style="list-style-type: none"> 1. Develops production ready scripts 2. Selects proper techniques of presentation keeping in view the requirement of the original text 3. Selects proper concepts and the talents for the programme 4. Guides the production staff such as set designers, cameraman, sound effects man, special effects man and the engineers 	<ol style="list-style-type: none"> 1. Knowledge about distance education and its various aspects 2. Theory and practice of TV production with special emphasis on the following: <ol style="list-style-type: none"> a) selection of proper sets b) camera movements (shooting process) c) appropriate formats and techniques in production d) programme editing
Script-writer	<ol style="list-style-type: none"> 1. Writes scripts based on curriculum to interpret, explain and elaborate certain portions in the texts 2. Determines the right format for a script 	<ol style="list-style-type: none"> 1. Knowledge about distance education and its various aspects 2. Theory and practice of TV script-writing 3. Formats in TV script-writing 4. Basic knowledge about TV production
Designer - graphics - illustrations - set designing	<ol style="list-style-type: none"> 1. Develops visuals, sets, illustrations and other material keeping in view the requirements of the scripts 2. Understands and carries out the instructions of the producer and provides him with sets and other visual material for production 	<ol style="list-style-type: none"> 1. Knowledge about distance education and its various aspects 2. Training in ETV set designing 3. Training in graphics 4. Training in developing visual materials for education
Special effects man (visual)	<ol style="list-style-type: none"> 1. Provides the producer with the required visual special effects to enhance the impact of the programme 2. Develops and conceives appropriate visual special effects for educational TV 	<ol style="list-style-type: none"> 1. Knowledge about distance education and its various aspects 2. Training in (visual) special effects

*Training of personnel for distance education**Table 5 (Continued)*

<i>Personnel</i>	<i>Tasks</i>	<i>Training needs</i>
5. Sound effects man	1. Provides the producer with the required sound effects	1. Knowledge about distance education and its various aspects 2. Training in audio special effects
6. Utilizer	1. Utilizes the programme with skill to derive maximum benefit out of it	1. Knowledge about distance education and its various aspects 2. Viewing programme in groups 3. Viewing programmes individually 4. Pre-programme activities 5. Post-programme activities 6. Feedback mechanism
7. Programme evaluator	1. Evaluates the programme 2. Writes report on the report	1. Knowledge about distance education and its various aspects 2. Programme evaluation and audience research 3. Research report-writing

Table 6: Multime in personnel and their training needs

<i>Personnel</i>	<i>Tasks</i>	<i>Training needs</i>
1. Producer	<ol style="list-style-type: none"> 1. Collaborates with the script writer in developing script for non-broadcast media 2. Combines, collects, selects and organizes men, machines and methods for the development of non-broadcast material, such as audio cassettes, video cassettes, flip charts, leaflets, slides, film strips, etc. 	<ol style="list-style-type: none"> 1. Knowledge about distance education and its various aspects 2. Training in production and organization of non-broadcast material for education
2. Script writer:	<ol style="list-style-type: none"> 1. Develops script for non-broadcast material keeping in view the requirements of distance education 	<ol style="list-style-type: none"> 1. Training in writing for audio component in non-broadcast material 2. Knowledge about distance education system
3. Photographer	<ol style="list-style-type: none"> 1. Takes photographs for stills and slides according to the instructions from the producer 	<ol style="list-style-type: none"> 1. Training in framing and taking the photographs necessary for instruction
4. Illustrator designer	<ol style="list-style-type: none"> 1. Provides illustrations, designs and diagrams for non-broadcast material 2. Develops suitable packages for the delivery of the material 	<ol style="list-style-type: none"> 1. Training in illustration/design suitable for enhancing the educational outcomes 2. Training in packing non-broadcast and print material 3. Knowledge about distance education system.