PART TWO

CHAPTER III

PLAN AND PROCEDURE
The present study has two distinct phases.

**Phase I** - Development of a video programme on population Education.

**Phase II** - Testing the effectiveness of the developed video programme.

In the first phase, a video programme was scientifically and systematically developed following the standard procedure of instructional product development.

In the second phase, the effectiveness of the developed video programme was tested adopted a quasi-experimental procedure with pre-test, post-test, control and experimental group design. Chapter III describes the first phase alternates chapter IV presents the highlights of the second phase.

In the phase-I development of a video programme on population education. For planning the video programme, it was necessary to analyse the prescribed syllabus on population education in B.Ed. classes of three universities from where at least one college each was selected
and included sample in the namely - (a) University College of Education of Dr. Sir Harisingh Gour Vishwavidyalaya, Sagar (M.P.); (b) Government College of Education, Chattarpur of Awadesh Pratap University, Rewa (M.P.) and (c) Government College of Education, Jabalpur of Rani Durgavati University, Jabalpur (M.P.).

These three syllabi were analysed and with the help of teachers of population education a final unitwise format of the syllabus of population education was prepared which is given on the page 51 and 52.

The video programme was prepared unitwise on the basis of the aforementioned recasted syllabus. Curriculum is concerned primarily with what to teach, whereas instruction is concerned primarily with what to teach. More specifically, instruction can be viewed as consisting of five relatively discrete activities, design, development, implementation, management and evaluation, instructional design as a discipline, is concerned with understanding, improving and applying methods of instruction. As a practical professional activity, it is the process of deciding what methods of instruction are best for generating learning experiences that will bring about desired changes in student knowledge and that will develop intellectual skills in a particular student target population for a specific course of study. The result of the instructional design process is an instructional develop-
ment "blue print" outlining what methods of instruction and what instructional media are best suited to a particular course content and specific student population. Such a blueprint not only prescribes procedures for instructional implementation, management and evaluation.

Decisions on how to teach it are traditionally, the role responsibility of the teacher. While this is not much of a problem in primary and secondary education, where professional teacher education is a well established prerequisite for appointment to a teaching position.

Figure I presents a memmary view of the media production system which is normally expected to be followed researchers in instructional product development.
FIGURE I: MEDIA PRODUCTION SYSTEM

1.0 Analyze content and units
2.0 Identify Teaching Units
3.0 Prepare Unit Lesson Plans
3.1 Identify Topics
3.2 State Concepts
3.3 State Behavioral Objectives
3.4 Conduct Task Analysis and State Learning Activities
3.5 Identify Media
3.6 Identify Modes of Evaluation

4.0 Prepare Activities
4.1 Learning Activities
4.2 Extra Activities (Assignment etc.)

5.0 Prolific Multi Media
5.1 Printed Materials
5.2 Audiovisual
5.3 Radio/T.V.
5.4 Tutorial Media

6.0 Conduct Tests and Evaluation
6.1 Evaluate the Process
6.2 Evaluate the Product

7.0 Combine all Media into Distance Teaching Package

8.0 Conduct Development Testings

9.0 Implement
UNIT I : INTRODUCTION TO POPULATION EDUCATION

Sub Units:

a) Meaning of population
b) Definition of population
c) Meaning of population education
d) Definition of population education.
e) Area of population education
f) Concept of population education
g) Issues and problems of population education

UNIT II : NATIONAL POLICY ON POPULATION EDUCATION

Sub Units:

a) Meaning of population policy
b) India's population policy
c) Meaning of family planning
d) Need of family planning
e) Role of N.C.E.R.T.

UNIT III : POPULATION DYNAMICS

Sub Units:

a) Population growth in India - Tables
b) Population growth in World - Tables
c) Population growth and standard of living
d) Population growth and environment
e) Relationship between population growth and health

UNIT IV : IMPLICATIONS OF POPULATION EDUCATION

Sub Units:

a) Population education programme in school
b) Role of teachers

c) Population education programme for out of school youth

UNIT V: CURRICULUM DEVELOPMENT AND POPULATION EDUCATION

Sub units:

a) Curriculum of population education

b) Integration of population education curriculum

c) Population education curriculum for primary and middle school level.

d) Population education curriculum on higher middle and University level.

Unit I, III and V are lengthy. Each unit was prepared in Hindi medium. After the selection of units and subunits the next step was the preparations for the development of the video programme.

The first step in deciding whether video is the appropriate medium for a particular training application is to see it not as a cure for all teaching-training ills but as just another training aid. There are a number of advantages to be gained from using video, some of which are:

Video is a moving medium. It is therefore suited to the subjects and topics in which movement is an integral part, and is the same as film in this sense. For use in training, however it has many advantages over film.
The video material can be recorded and replayed on the spot without delay for rewinding the tape. This makes it ideal for instruction based on group analysis or self analysis. Being able to both see and hear the inselves gives students insights which are impossible with any other medium.

Video has immediacy and relevance properties which are often lacking in training. The video programmes can be tailored to this exact needs, so that no longer do have to show the students extraneous materials or subject.

Video is timely. The programmes on any subject whenever one wants them such as producing a useful film or tape on being able to hire one at the right time of use.

Video is up-to-date. Many excellent training films become outdated in style but continue to use them even through they fail to reflect the attitudes and tastes of our current students. The video allows to update both content and style with comparative ease.

Video programme can be designed for group or individual instruction to suit the teaching methods are using in the course.

The video brings to students what cannot be taken to them to see. Most trainees work on tight budget and
simply cannot afford either the money of the time for showing students the real thing. No substitute is ideal, but video comes close to the need.

An attempt was made to identify, analyse and understand the characteristics of different instructional media in a comparative manner. The results of the analysis have been prescribed in Fig. II.

Video allows everyone to see properly. It small items, it sees detail, it acts as eyes when space prohibits everyone from getting a good view, and it focus attention when there is a mass of information to be discriminated. Video provides a method of sharing experiences.

Some cases for using video are clear unequivocal while others may be the result of compromises between many factors which have to be considered.

The step-wise development of a video programme is indicated in Fig. III. It is therefore understandable that conventional education has not undergone widespread changes with lectures, tutorials and workshops, remaining predominant for hundreds of years. Further organizational structures have evolved to maintain this emphasis on face-to-face delivery of instruction it is not surprising that other instructional media (audio tapes, video tapes, and computer based packages) have been slow to make an impact, especially in teacher education.
FIGURE II: CHARACTERISTICS OF INSTRUCTIONAL MEDIA

<table>
<thead>
<tr>
<th>Material presentation</th>
<th>Knowledge of results</th>
<th>Arousal of responses</th>
<th>Regulation of responses</th>
<th>Evaluation and diagnosis</th>
<th>Information acceptance</th>
<th>Information processing</th>
<th>Response to information transmission</th>
<th>Response to the tasks</th>
<th>Response of controlling</th>
<th>Self evaluation</th>
<th>Information retrieval</th>
<th>2 way communication</th>
<th>3 way communication</th>
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<tbody>
<tr>
<td>Printed matters</td>
<td>Textbook</td>
<td>Programmed book</td>
<td>Blackboard</td>
<td>Model</td>
<td>Film</td>
<td>Concept film</td>
<td>CHIPS</td>
<td>CAT</td>
<td>Correspondence education</td>
<td>Use of broadcasting equipment</td>
<td>Use of television for CAT</td>
<td>Use of broadcasting education</td>
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<tr>
<th>Knowledge</th>
<th>Skill</th>
<th>Ability</th>
<th>Attitude</th>
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<tr>
<th>Cost</th>
<th>Operational cost</th>
<th>Number of learners</th>
<th>Cost/no.of learners</th>
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<th>Preparation</th>
<th>Preservability</th>
<th>Repeatability</th>
<th>Use of existing system</th>
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<tr>
<th>Utility</th>
<th>Practicality</th>
<th>Individual learning</th>
<th>Group learning</th>
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<tr>
<th>Response measurement</th>
<th>Analyze</th>
<th>Simulator</th>
<th>Remote access</th>
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<tr>
<th>Training devices</th>
<th>Information acceptance</th>
<th>Information processing</th>
<th>Response to information transmission</th>
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<tr>
<th>CAT</th>
<th>Information presentation</th>
<th>Equipment</th>
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<th>Use of CHIPS</th>
<th>CAT</th>
<th>Equipment</th>
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<tr>
<th>Use of CAT</th>
<th>Equipment</th>
<th>CAT</th>
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<tr>
<td>Teaching Techniques</td>
<td>Consideration</td>
<td>Production</td>
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<tr>
<td>2. Textbooks already published</td>
<td>High purchase price. Ongoing availability.</td>
<td>Studios</td>
</tr>
<tr>
<td>3. Journals/newspapers</td>
<td>Availability Cost</td>
<td>Student access to equipment</td>
</tr>
<tr>
<td>13. Self-help study groups</td>
<td>Leaders.</td>
<td>Assistance from institutions</td>
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<td>15. Off-campus tutorial</td>
<td>Supervisors.</td>
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In summary population education by its very nature, is dependent on the use of a range of instructional media which serve to minimize the role of face to face teaching. The use of often expensive instructional media demands thoughtful preplanning with a concomitant switch in emphasis from instructional delivery to instructional design and development. Typically, the use of printed study guides, audiotapes, videotapes and computer based packages demands a more systematic detailed approach to preinstructional planning than is normally associated with traditional face to face teaching. This use of a range of media in population education promotes a inter and multidisciplinary team approach to instruction, since it would be most unusual to find the range of expertise necessary to exploit a range of instructional media in a single individual.

The procedure of programme production is methodical and technical. It has been elaborately described and depicted in Fig. IV.

However, because of the constraints of time and resources, some of the steps were not taken into consideration and the procedure was simplified and shortened according to the needs of the study. The adopted procedure has been illustrated in Fig. V.
Fig. V: DEVELOPMENT OF A VIDEO PROGRAMME

a | b | c | d
---|---|---|---
PLANNING THE PROGRAMME | PREPARING THE PROGRAMME | TRYING-OUT THE PROGRAMME | EVALUATING THE PROGRAMME

(i) Analysis the prescribed syllabus | (i) Preparing the script | (i) Preliminary tryout | (i) Indicators of effectiveness

(ii) Inducing the units of study | (ii) Editing the script | (ii) Opinion of the views | (ii) Quality of the video programme

(iii) Preparations for the development of a video pro- | (iii) Opinion of the specialist | (iii) Finalizing the script for video formation | (iii) Strategy for testing the effectiveness
The preparation of script is a difficult task. The writing of the script has three clearcut stages viz. 1. Pre-writing, 2. Writing, 3. Post-writing. Fig. VI describes the detailed particulars of the three distinct stages of script-writing. The script of the proposed video programme was systematically and methodically written following the essential steps and the essence of the technique of writing was kept in view. Such a careful and cautious approach helped in developing a script which is interlegible and presentable.

The next step was the preparation of script. The research used facts through a combination of various means such as review of existing documents, observations and specialists. Specific period of time was followed by a definite unit plan, where a plan of work mutually developed with a clear understanding of the procedures. The researcher called a meeting of resource persons and specialist to evaluate method, subject matter, materials, voice and so many other factors. Researcher modified the script and finalised the same on this basis.

After finalised the script, the need was find a suitable method of working to get all the information. The researcher used a preliminary try out. The researcher called once again a meeting of resource persons and specialist to evaluate the developed video programme. The prepared script was blue print for visual and aural
FIGURE VI: STEPS AND STAGES OF SCRIPT-WRITING

**PRE-WRITING**

- **Determine scope**
  - (what message do you want to convey?)

- **Define purpose**
  - (why do you need a document?)

**Writing**

- **Determine task**
  - *fill out form*
  - *read and act*
  - *read and remember*
  - *...*
  - *...*

**Post-Writing**

- **Draft document**
  - *select appropriate content*
  - *organize for your audience*
  - *write clearly*
  - *use graphics to help clarify your message*

- **Evaluate**
  - (does your document achieve its purpose for its audience?)

- **Review, Revise and edit**
content, the finished programme rarely exactly the same. The researcher used a series of cards and script sheets. The advantage of separate cards was that their order could be changed quickly disadvantage are that the cards get out of sequence easily they take up a lot of space and are cumbersome to handle. The resource persons advised solution to these problem was to reduce the amount of paper by photocopying several cards on to one sheet. When this was finished permanent photocopies were ready to work from. The pictures were planned to show exactly what needs to be shown closeups or long shots as per need were used. The visual context was clear. The researcher adopted a satisfactory procedure (Fig. VII).

Planned camera movements for shots which require them. The movement of the subject within the shot. Planned the continuity of pictures for smooth transition from the content of one shot to the content of the next. Planned the logic of picture changes so that sequences flow within themselves. Planned the exact words for titles and captions. Planned art work for graphics and illustrations so that it prepared in time.

The shots and effects which are within the technical capabilities of equipment were planned. Researcher followed advice about how to record shots and sound. There were good reasons for doing things in a certain way to get a certain result the resource persons was happy to suggested the researcher.
FIGURE VII: SCHEMATIC PRESENTATION OF THE PROCESS

Preparing a plan of work

Formulating programme objectives

Tryoutng the programme

Evaluating the programme

Situation analysis
Identifying problems / needs

Effectiveness the programme
For evaluating the programme the researcher adopted the following procedure. The audience was evaluate the perception of audience about video programmes was judged the whole video programme as well as the parts of video programme content were also a evaluated in terms of presentation has been a great acceptance and relevance.

The relationship between teacher's functions and instructional media has been analysed and exhibited in Fig. VIII. It illustrates how different teacher's functions such as presenting information, controlling learner response and evaluating teacher's performance differ from one medium to another. It becomes clear that in the use of overhead projector, video tape recorder and television a vailability of teaching skills are required to be used for effective and efficient teaching-learning interaction.

The foregoing indicators of the evaluation of video programme reviewed the quality of video programme was sufficiently good and sweetest to be content area of B.Ed. Population education as well as to the group of B.Ed. student who adopted population education as one of the subject of B.Ed. course. The video programme were also proved to be useable objectives, reliable and valid.

The evaluation function is divided into two parts, collection of information, concerning learners and their diagnosis and collection of information concerning teaching effects and their diagnosis.
FIGURE VIII: RELATIONSHIP BETWEEN TEACHER'S FUNCTIONS AND INSTRUCTIONAL MEDIA

<table>
<thead>
<tr>
<th>TEACHING FUNCTIONS</th>
<th>EVALUATING FUNCTIONS</th>
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<tr>
<td>INFORMATION PRESENTING FUNCTIONS</td>
<td>REGULATING OF RESPONSES</td>
</tr>
<tr>
<td>Material presentation</td>
<td>Collecting information concerning students and diagnosing them</td>
</tr>
<tr>
<td>explaining advising commenting dramatizing demonstrating</td>
<td>indicating instructing guiding modeling expressing gesturing</td>
</tr>
<tr>
<td>confining rejecting receiving summarizing opinion gesturing expressing</td>
<td>inspecting around classroom interviewing observing</td>
</tr>
<tr>
<td></td>
<td>Collecting information concerning teaching effects and diagnosing them</td>
</tr>
</tbody>
</table>

Contents:
- Board for presenting teaching materials
- Non-projective teaching equipment
- Turtle
- Projector
- Videodisc
- Tape Recorder
- Computer
- Slide projector
- 8 mm projector
- 5 mm concept projector
- 16 mm projector
- Epidsiascope
- VTR
- Tape recorder
- Recording sheet
- TV, radio
- ITV
- Closed circuit radio & TV
- LL, driving laboratory
- simulator
- TM, classroom simulation
- Training simulator
- Camera
- Memo motion camera
- Polygraph
- Response analyzer
At the time of testing the effectiveness of the developed video programme, the suitability and success of the video use was judged through change in levels of knowledge about population education and variation in the attitude scores of learners of control and experimental groups towards small family norm, population education and related aspects.

The developed video programme on Population Education seems to be interesting, linagination and innovative. Its effectiveness has been checked and verified through a quasi-experimental study described in Chapter-IV. The attempt deserves appreciation and applause though it hints at the need of further improvement and careful experimentation for establishing its success beyond doubt.