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ABSTRACT

Characteristics of a minicourse developed at Macquarie University in Australia, its application in Australia, and potential for countries in the Asia-Pacific region are discussed. A minicourse is defined as an entire course of studies for a group, similar to a conventional course but compressed into a few hours. The Australian minicourse is characterized by: a systems approach, self contained, clear objectives, skills orientation, wide participation, varied learning activities and media, structured program, creative activity, overt and exemplary strategies, participant feedback, followup, and an educational technology design. In addition to describing minicourse development and the resources needed, a minicourse description, which includes the rationale and objectives, is presented. Examples of training areas in Asia and the Pacific where minicourses would be applicable are examined, including inservice education, curriculum development, material development and evaluation, and resource center administration. The following resources are also presented: titles of available minicourses, guidelines for adapting minicourses to the needs of developing countries, a case study of the application of the minicourse approach in Thailand, checklists for evaluating program design and presentation, and a bibliography. (SW)

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Asian Programme of
Educational Innovation for Development **APEID**

The Minicourse Approach: What it is and how it works

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The paper on the Minicourse Approach: Feasibility, Potential and Applications in Asia, was prepared by an APEID Task Force.

The Task Force which met from 28 to 30 May 1982 discussed the characteristics of a minicourse, its application in Australia and potential for countries in the Asia-Pacific region. It also developed guidelines for the adaptation of minicourses to meet local needs and completed a case-study on the application of the minicourse approach in Thailand.

Sections I to V and Section IX and X have been prepared by Dr. Rex Meyer largely from material he has published elsewhere. Section VI, VII and VIII were written by Dr. Meyer with the assistance of the task force.

The members of the Task Force were: Dr. Rex Meyer, Chairman, Mr. Somprasong Withayakiet and Miss Kannikar Yaemgeasorn.

CONTENTS

| | Page |
|---|------|
| I. Introduction | 1 |
| II. Definitions | 4 |
| III. Characteristics | 6 |
| IV. Principles of Design | 9 |
| V. Present Applications in Australia | 16 |
| VI. Utilization in Asia and the Pacific | 26 |
| VII. Guidelines for Adaptation for Developing Countries | 33 |
| VIII. A Case Study - Application of the Minicourse Approach in Thailand | 39 |
| IX. Evaluation Checklists | 47 |
| X. References on Modules and Minicourses | 53 |

I. INTRODUCTION

There is growing interest in Asia and the Pacific in the use of minicourses for various aspects of training and retraining. The most widely used model is based on an approach developed in Australia at Macquarie University by a team of educational technologists under the direction of Dr. Rex Meyer (see references). The concept of the minicourse originally arose in the United States in the last decade as an extension of the audio-tutorial. In an audio-tutorial the content of a given course is broken into units or modules containing semi-programmed and self-paced learning materials co-ordinated by audio-tape recordings. A module has been defined as a self-contained, independent, self-paced unit of work programmed to a set of objectives. The characteristics of modules have been described and discussed by Creager and Murray (see references). Creager and Murray have set out the components of a typical module as listed below:

- statement of purpose
- desirable prerequisite skills
- instructional objectives
- diagnostic pre-test
- implementers for the module (i.e. equipment and supplies)
- the modular programme
- related experiences
- evaluation post-test
- assessment of the module.

The minicourse has grown out of the module concept. While keeping within the constraints of a short time span, minicourses maximise variety in strategies and media to ensure achievement of carefully specified objectives. They utilize those strategies and media most appropriate for the achievement of their stated objectives and unlike modules are not designed for work by individuals.

The following sequence traces the transition from conventional courses to the audio-tutorials of the mid-1960s, the modules of the late 1960s and early 1970s, and finally to minicourses (mid-1970s).

1. Conventional semester course - pre-1960: A semester programme of lectures, workshops and tutorials
2. Conventional audio-tutorial courses - early and mid-1960s: Lectures, workshops and tutorials of a conventional programme fused into a series of audio-tutorials involving self-paced, semi-programmed learning, co-ordinated by audio-tape and designed to achieve specified behavioural objectives

Minicourse Approach

3. Sequential modular audio-tutorial courses - late 1960s: Recognition that each week of a semester course designed as part of an audio-tutorial course had specifically defined objectives relatively independent of objectives to be achieved in other weeks. There was, however, some gain from week to week, each weekly unit cumulatively contributing to broad aims of the course as a whole. This led to the idea that each week's work was a separate modular entity constituting a step towards the next module in the sequence.
4. Non-sequential modular audio-tutorial courses - late 1960s and early 1970s: The next stage was to develop each unit or module so that it was virtually independent of each other unit in the course. The logical extension of this idea was to allow students to sequence the modules in ways that suited their backgrounds and interests. A further modification was to provide additional modules to allow students to select those of special interest and relevance and to avoid others, while still satisfying course requirements with regard to hours of attendance. Precise objectives achieved would vary from student to student according to selection and sequencing of modules, but usually there was a core of compulsory sequences plus electives. At this stage the main medium of co-ordination remained the audio-tape recording.
5. Independent modules - early 1970s: Where credit points of a conventional course were no longer of significance or where they could be gained by very flexible combinations of small units, it was a logical development to offer each module separately as a complete entity in itself and to allow students to take any percentage of modules offered within a particular programme. At this point the more conventional audio-tutorial format was relaxed and modules took on a variety of formats and media of co-ordination from simple printed materials to highly complex multi-media systems. In each case, however, emphasis was on a self-paced semi-programmed mode of learning.
6. Minicourse - mid-1970s: The final step in this evolution was a rethinking about the nature of each independent unit to further liberalise its format and purpose. It was recognized that with careful planning entirely self-contained courses (not merely units within a course) could be presented in modular form and that each module.

could have value in its own right. It was further recognized that self-paced learning was only one useful strategy and that at times work in groups of various sizes from two to forty had educational merit and could operate within a modular format. At this stage the true 'miniature' course emerged, involving, say, a few days or even only a few hours of learning activity, and the minicourse was finally evolved.

Educational technologists at Macquarie University in Sydney, Australia, have, since the mid 1970s, experimented with various designs for the most effective form of minicourse. They have now produced a carefully controlled and validated model based on a systems approach and it is that model which is being tested by educational systems in countries of Asia and the Pacific.

II. DEFINITIONS

There is frequently some confusion between the terms module and minicourse and the words are sometimes used as though they had the same meaning.

It is suggested, therefore, that the following definitions be used.

Module: a self-contained semi-programmed and self-paced unit of work designed to achieve highly specific objectives in a short span of time, usually a few days or less. Usually, but not always, based on an educational technology model. Always packaged for use as an independent learning resource. May or may not be a unit of an extended course.

Minicourse: a fully self-contained, flexible, miniature course or workshop for groups, usually involving a variety of media and strategies and with prescribed objectives achievable in a short span of time, usually a few days or less. Always based on an educational technology model. Not packaged for independent learning. Never a unit of an extended course.

An important way of looking at the distinction between the module and the minicourse is in their formats. A module always takes the physical form of a package of learning materials designed for independent study. In a module, emphasis is on the package. A minicourse, on the other hand, while having a training manual associated with it, depends basically for its co-ordination on the presence of a course leader and on group work. It 'exists' as an entity only during its hours of presentation. In this respect it is a true miniature course presented for a group by a course leader. In a minicourse the stress is on group interaction.

The emphasis given to self-pacing in the definition of a module is consistent with the historical origin of the module in relation to the audio-tutorial. The stress on 'unit' of work is consistent with the idea that a module is an exemplar of a series of activities based on similar principles. 'Course' in the term 'minicourse', on the other hand, implies a breakaway from the rigidity of the self-paced format. This allows course development to be as free as for any other type of course based on the principles of educational technology except for the constraint imposed by a severely limited time span, and the implications that this has for effective course design.

Definitions

In summary a minicourse is an entire course of studies for a group, with all the characteristics of a well designed conventional course, but compressed into a few hours. In order to make such a course work it has to have very special features of design and these are described in sections III and IV below.

III. CHARACTERISTICS

A mini-course as evolved by Australian developers has the following characteristics:

1. Responsive to Need

Each course is designed to meet a definite need. This need often arises following the introduction of a new technology, after staff replacement, or relocation, or during implementation of new policy such as greater school autonomy.

2. Self-contained

Each minicourse is totally self-contained and does not depend on any other minicourse in the series. The independent identity of each minicourse makes it possible for a teacher or trainer to attend only the courses immediately relevant to his or her needs.

3. Short Duration

A minicourse by definition should involve no more than one day of intensive learning effort. The optimum period is eight hours, perhaps broken into two evenings of four hours each. With careful structuring and pre-planning, more can be achieved this way than in a programme of, say, one hour per week for eight weeks. This is because one activity can lead directly into another and progress is rapid.

4. Clear Objectives

Since the optimal duration of each minicourse is only eight hours, a clear statement of course aims and objectives is critical. They must be achievable in the limited time available.

5. Skills Orientation

The minicourse format is especially suitable for acquiring professional teaching skills. These include skills such as small group work for example; classroom questioning; audio-visual techniques; or designing an assessment programme.

6. Wide Participation

An important feature of minicourses is an exchange of views between participants with widely differing backgrounds. Those attending could include staff from universities; school; teacher education institutions and other types of colleges; from technical education; and from training units of industry and the armed services.

7. Varied Learning Activities

Within each minicourse, a wide variety of strategies is employed, and each minicourse includes those strategies most appropriate for the achievement of its objectives. A change of pace is frequently introduced by grouping and regrouping for different types of activity.

8. Variety of Media

Almost all minicourses present information through a variety of media. Printed materials; video programmes; slides; movie films; slide/tape presentations; audio programmes; and other media assist in maximising the effectiveness of each course.

9. Structured Programme

The wide variety of strategies and media implies a great deal of structuring. Each programme is carefully pre-planned in sequenced units of 15 to 30 minutes each. Each unit includes a carefully developed strategy relevant to content and objectives.

10. Creative Activity

The high degree of structuring is necessary to allow compression of extended practical activity and numerous concepts into the eight hours of the course. It is also possible to build in "open ended" creative activities within the structure that satisfy the more independently minded participant.

11. Strategies Made Overt

Because all those attending the minicourses do so to improve professional teaching and administrative skills, most courses provide an opportunity for the review and analysis of those strategies actually used in the course.

12. Exemplary Strategies

Wherever practicable, minicourses utilise those strategies that exemplify the particular skill or process to be acquired by participants. A minicourse on the Keller plan for instance, should include segments presented by the Keller Method.

13. Evaluation

In order to increase effectiveness some feedback is sought. Participants spend five minutes answering a short standardised questionnaire. While such "on-the-spot" methods of evaluation cannot be expected to provide much evidence about the long term effectiveness, they are useful for the redevelopment of some aspects of planning.

14. Follow-up

A consultancy service should be available for all participants who may need to seek further help and advice on any aspect arising from any minicourse.

15. Design

Each minicourse is designed on an educational technology basis. That is a systems model which is employed in the overall design and each activity is planned as an input-process-output sequence. This aspect is described in more detail below.

IV. PRINCIPLES OF DESIGN

A minicourse as developed by Meyer is based on an educational technology model.

In the first place, minicourses are designed and developed according to the systems approach to course design. Each minicourse is planned by a committee consisting of two educational technologists specializing in instructional design together with expert consultants and/or especially appointed course leaders. As a minicourse is essentially a self-contained mini-curriculum, the steps in production are essentially a miniaturised version of the classical 'systems' steps of curriculum development. Each step, however, has special features determined by the constraints of the minicourse format. These are tabulated below.

Steps in the development of a minicourse:

Classical step in
'systems' approach to
curriculum development

Special aspects of
minicourse development

1. Determination of need

Wherever possible, the need should be related to providing increased alternatives for teachers. It should be possible to see that meeting the need will improve the quality of both teaching and learning. In general the need should be related to the development of specific professional skills.

2. Formulation of aims

The aims must be specific and clearly relate to the need.

3. Formulation of objectives

The objectives must both be expressed in general terms and be behaviourally orientated. They must be achievable in the time available - usually no more than eight hours. Specific behavioural objectives, however, are usually not required.

Minicourse Approach

Classical step to 'systems' approach to curriculum development

Special aspects of minicourse development

- | | |
|---|--|
| 4. Survey of available resources (including media) and of possible strategies | Because of the high degree of compression, the resources and strategies must be as varied as possible to achieve maximum interest and to maintain a rapid pace. They must also be practicable in relation to the strictly limited time available. |
| 5. Selection and sequencing of strategies and resources (including media) | Considerably care must be taken to select those strategies and media that are most appropriate for the objectives. In a minicourse there is no room for error in this regard, as every minute is needed to achieve the objectives and cannot be spent on non-productive sequences. |
| 6. Development of learning materials | Great care must be taken to ensure that instructions are clear and that the activities can be reasonably treated in the time available. |
| 7. First trialling | Trialling in the usual sense of the term is generally not possible in the minicourse situation because the 'students' come voluntarily and from widely varying institutions, and each trial would be with a different group. The first time the course is presented is its trial. |
| 8. Formative evaluation (at each step 2 to 7) | This can be achieved only by reflective evaluation at all stages of development and by repeating the course, changing aspects as feedback is directly obtained from participants. |

Classical step in
'systems' approach to
curriculum development

Special aspects of
minicourse development

- | | |
|--|---|
| 9. Modification of objectives and strategies | It is necessary to repeat a minicourse sufficiently often to locate weaknesses and to modify aspects before any 'final' version can be produced. |
| 10. Further development of curriculum including 'final' versions of learning materials | This is unlikely to be easily achieved until the course has been repeated several times. Materials must remain in 'trial' form for at least two years. The self-contained nature of the programme, however, requires a stable format as soon as all necessary feedback has been obtained. |
| 11. Summative evaluation | Field observations of the behaviours of previous participants can be made to check on whether skills developed during a minicourse are being applied. |
-

The second aspect of the educational technology basis is the dependence of minicourse on behavioural theory. All programmes are essentially presented as stimulus-response chains. As each response is made there is ample opportunity for reinforcement to occur through 'rewards' such as self-satisfaction with a viable product, peer approval, appropriate positive comment from the course leaders and so on.

The third aspect of the educational technology basis is the input-process-output model that has been mentioned as one of the characteristics of each minicourse. A simple example could be the playing and use of a short audio-tape recording (see Figure 1). Input-processing-output cycles are linked linearly, each output feeding back both to the input phase of that cycle and contributing to the input phase of the next, as shown in Figure 2 (I = input, P = process, O = output).

Minicourse Approach

The pattern is, in reality, more complex than this. In some programmes I-P-O cycles can themselves compound to form 'super-cycles' and in all cases certain combinations summate to an I-O cycle (equivalent perhaps to aggregated stimulus-response chains). An I-O cycle usually corresponds to the work of the first part (I) and the second part (O) of the programme. Refer to Figure 3.

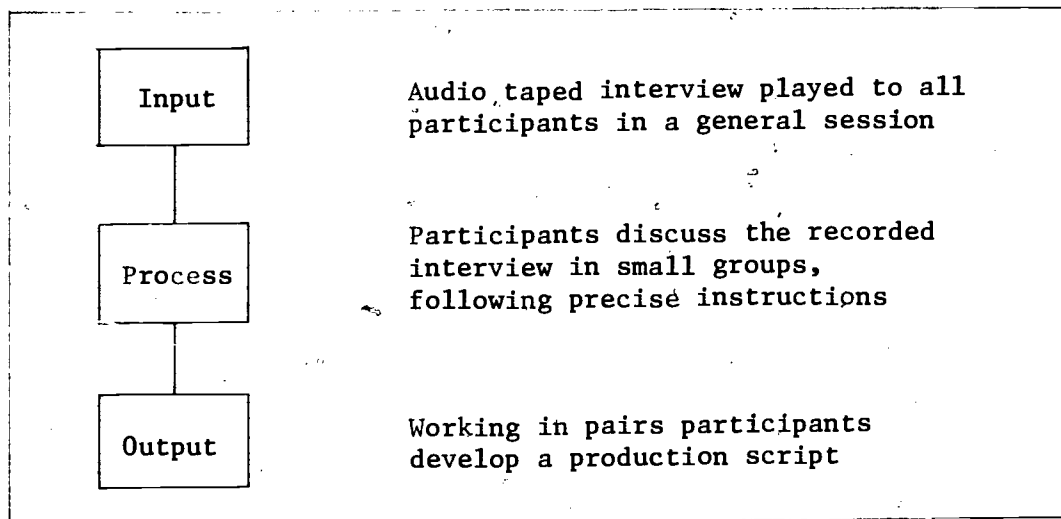


Figure 1. Input process and output phases of a minicourse activity

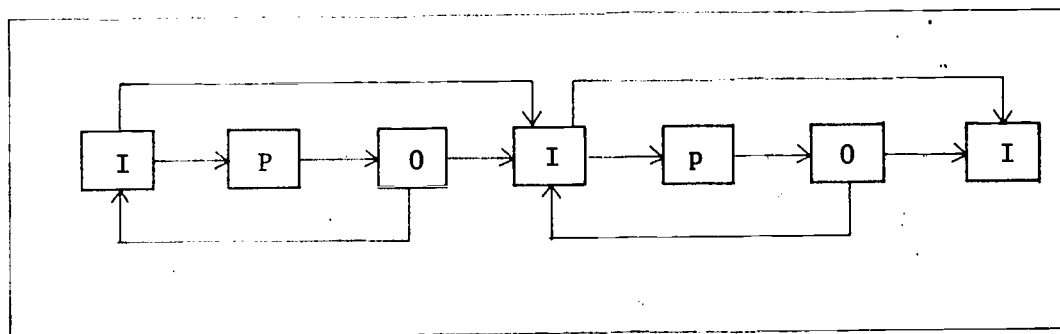


Figure 2. The Input-Process-Output cycles of a minicourse programme

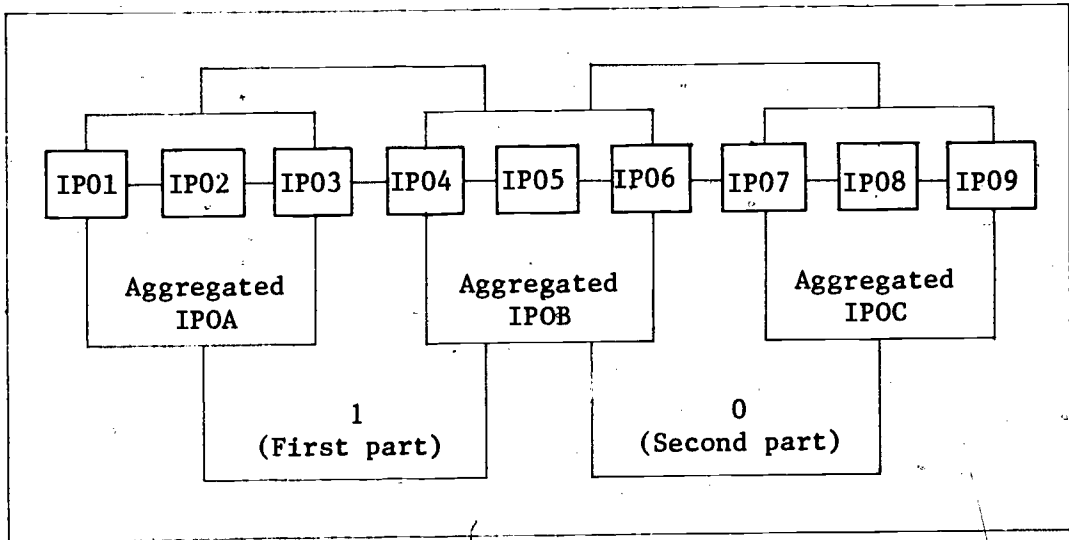


Figure 3. Aggregations of IPO cycles in a minicourse programme

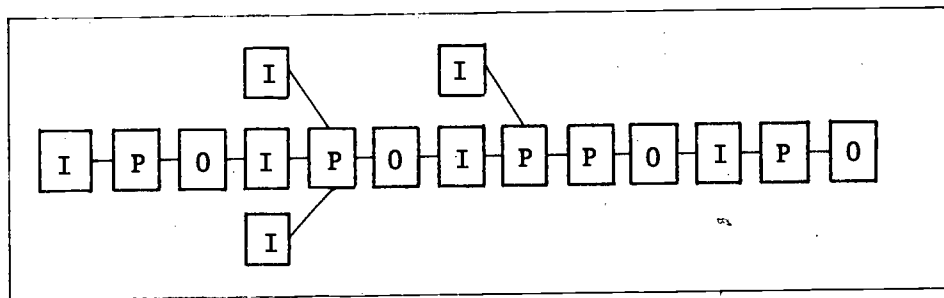


Figure 4. Variants of the I-P-O cycles in a minicourse

Further variations occur from time to time where required by introducing several 'inputs' virtually simultaneously or in sequence (e.g. as in an audio-tutorial, or a talk followed by reading), or by chaining two or more 'process' activities in sequence (see Figure 4).

Most minicourses include four or five I-P-O cycles in an eight-hour programme. It would be rare to include less than four and there would never be more than nine.

Minicourse Approach

The basic resources required for a minicourse are packaged in a training manual summarising all aspects of the input and of the processing and output activities. Pro formas are included for responses. Each manual is in a loose-leaf ring binder and is mimeographed. There are seven sections apart from the title page, preface, acknowledgements and list of contents. These sections are colour coded and separated by card dividers.

Introductory Apart from the objectives and programme this contains some general material on minicourse and on the educational technology model on which they are based.

Activities A description is given in this section of all input and activities together with response pro formas.

Evaluation A section containing 'answers' to any 'problems' introduced during the activities, together with questionnaires, rating scales and any other evaluative instruments specifically related to the minicourse in question. In addition there are two evaluative pro formas to evaluate the effectiveness of the minicourse.

Background and further reading Short readings, an annotated reference list and a list of references on aspects of adult learning, the latter being included in all manuals.

For the minicourse leader This is in two parts. In the first part there is an extended section describing and discussing the principles on which all minicourses are based. This occurs in all titles in the series. In the second section, information is provided to assist any potential course leader in mounting the particular minicourse. It includes notes on technical resources required, results of the data provided by the evaluative questionnaires and ratings on achievement of objectives and brief notes on each item of the programme. It frequently includes additional information such as typical examples of participants' outputs.

Enrolment Information on enrolment procedure, fees and copies of enrolment forms.

Resources

This section contains items such as plain cards; blank overhead transparency sheets; pamphlets and other printed resources; colour slides; carbon paper and other light-weight materials in plastic wallets and pockets. Cassette tapes are sometime included held in place by plastic cassette holders mounted onto the inside of the manual cover. These resources are those specifically required for the prescribed activities.

These manuals are not designed to be fully self-contained. Minicourses depend on group interaction and effective course leadership and so the manuals are not intended for independent or individualized learning. The leaders' notes, however, help to make it possible for potential presenters who have had basic training in teaching to mount a given minicourse, or one like it.

V. PRESENT APPLICATIONS IN AUSTRALIA

Minicourses are now widely used in Australia. They are used for the professional development of teachers of all types, in both school and non-school situations and in both formal and non-formal education. They have been used for groups as diverse as pre-school, primary and secondary teachers; university and college lecturers; extension workers; health educators; nurse educators; trainers in the police and armed services; trainers in industry, commerce and government departments; administrators; supervisors; and vocational and technical teachers.

Minicourses have spread throughout Australia and are now being used by various groups in all states. In New South Wales they are extensively used for the in-service training of school teachers, university lecturers, police and armed service trainers, nurse educators, and staff of technical colleges. In Victoria, South Australia and Tasmania they are mainly utilized for the in-service professional development of teachers in technical and vocational institutions, and in Queensland and Western Australia minicourses form the basis of training programmes for upgrading teaching competencies of college lecturers.

The programme of minicourses offered to the community by Macquarie University is now very extensive. These are not for university credit. They are offered to any member of the general community who may wish to enrol. Titles of minicourses produced in recent years are listed below. (Those with training manuals currently (1982) available for sale are shown by an asterisk. Manuals may be purchased from the Minicourse Secretary, School of Education, Macquarie University, North Ryde, N.S.W. 2113, Australia. Price lists and order forms on application).

- 01 Laboratory techniques
- 02 A multi media approach to selected topics in junior science
- 03 Field course in the interpretation of sedimentary rocks
- 04 Assessment and evaluation at School Certificate Level
- 05 Using media in an enquiry approach to senior secondary geology
- 06 Making educational slide sets
- 07 Making and using OHP transparencies
- *08 Producing educational audio tapes
- *09 School based curriculum development
- 10 Seminar for teachers of fitting and machine courses
- 11 Classroom observation
- 12 Component skills approach to teaching
- 13 Using reinforcement skills in the classroom
- *14 Writing instructional objectives

Present Applications in Australia

- *15 Small group teaching
- *16 Lecturing techniques
- *17 Using the overhead projector effectively
- *18 Making and using 35mm slide sets
- *19 The audio tutorial method of organizing instruction
- *20 Video in instruction
- 21 Open space teaching in schools
- *22 Developing a programme for the assessment of student performance
- *23 Evaluating and improving instructor effectiveness
- *24 Team teaching and open space teaching
- *25 Item writing for objective examinations
- *26 Programmed learning
- *27 Designing a course of studies
- *28 Strategies for individualizing learning
- 29 Supervising postgraduate students
- *30 Using non-book resources in the primary school
- 31 Simple TV techniques for schools
- *32 Providing inservice education for teachers
- 33 Producing 8mm film for schools
- *34 Designing learning modules for inservice teacher education
- 35 Development of teaching skills for the secondary school
- 36 Advanced techniques for making overhead transparencies
- *37 Educational basis for individualizing learning
- *38 Turning the school library into a learning resources centre
- *39 Making audio tapes for external students
- *40 Developing a reading programme for a course of studies
- *41 Using sociodrama as an educational strategy
- 42 Using simulation in teaching social studies
- *43 Using role playing as an educational strategy
- *44 Simulation games in teaching
- *45 Cognitive mapping - matching the styles of teaching and learning
- *46 The Keller method of organizing instruction
- *47 Developing a resource centre for adult learners
- *48 Diagnosis of organizational needs in education
- *49 Using creative drama as an educational strategy
- 50 Micro-teaching in teacher education
- 51 Designing television watching schedules for children
- *52 A first introduction to the principles of organizational development in education
- *53 Using group investigation in teaching
- 54 Motivation and reinforcement in teaching
- *55 Communications skills in teaching
- *56 Designing a course of continuing education for adult learners
- *57 Toy libraries for the handicapped
- *58 Basic skills in using the super 8mm movie camera
- *59 Planning for the production of a super 8mm movie film
- *60 Simple production techniques for super 8mm movies -
an introduction

Minicourse Approach

- *61 How to present a minicourse
- *62 Conflict resolution in groups
- *63 Using social interaction games in teaching
- *64 Using simulation in intercultural education
- *65 Helping students develop study skills
- *66 Using A-V technology in teaching - an overview
- *67 Inquiry learning
- *68 How to give a talk
- *69 Using small group techniques

Each minicourse is carefully specified in terms of rationale, purpose, aims and objectives and programme. The programme is set out in detail with times, topics and activities and groupings of learners all shown clearly.

This approach is important as it allows full details of the minicourse to be advertised well in advance and so makes it unlikely that those attending will have false expectations about outcome, levels of attainment and activities to be undertaken.

An example of this type of specification is given below. The example is minicourse M68 How to give a talk from the Macquarie University series.

MINICOURSE

M68: HOW TO GIVE A TALK

The ability to give a talk which is clear and concise is fundamental to anyone concerned with almost any aspect of adult education.

Giving a good talk involves much more than reading from prepared notes, and this course is concerned with the development of the skills required for effective presentation.

Purpose: This course is intended for people who have had little experience in public speaking. Aspects stressed include organization, structure and delivery.

Aims:

1. To develop confidence in organizing and delivering a talk.
2. To increase awareness of the importance of thorough preparation and organization.
3. To increase understanding of techniques which improve the effectiveness of a talk.

Objectives: After completing the course you should be able to:

1. Identify the characteristics of a potential audience so that the talk can meet their needs.
2. Describe the qualities of an effective talk.
3. Select and use an appropriate structure for a given talk.
4. Apply a range of techniques to improve presentation.

Minicourse Approach

PROGRAMME - M68

| Session I | Topic and Activity | Grouping |
|-----------|--|------------------------------------|
| 4.30-5.30 | Who are you talking to? (i) Introductory activity clarifying the interests of participants in this course (ii) Review of alternative strategies for defining your audience | General session General session |
| 5.30-6.15 | Why give a talk? Groups consider:- (i) Why "Talk"? (ii) What makes a good talk? | Syndicate groups (7-8) |
| 6.15-6.30 | Basic skills involved in giving a talk Illustrated talk | General session |
| 6.30-7.30 | DINNER | |
| 7.30-8.00 | Structuring a talk. (i) Introductory talk (ii) Listening to and analysis of audio excerpts | General session |
| 8.00-9.00 | The skill of explanation (i) Review of the steps in preparing an explanation (ii) Workshop in which participants develop and practice skills | Small groups(4) |
| 9.00-9.20 | Delivery skills Short talk on aspects of verbal and non-verbal behaviour which improve communication | General session |
| 9.20-9.30 | Orientation for workshops on second evening Brief discussion | General session |

| Session II | Topic and Activity | Grouping |
|------------|---|--------------------|
| 4.30-5.15 | How to begin and how to end Groups derive lists of do's and don'ts | Small groups (6-8) |
| 5.15-5.45 | Planning an effective talk Workshop in which participants select techniques appropriate for a given script | Small groups (5-6) |
| 5.45-6.30 | Preparing for a talk Workshop on preparation for a five minute talk | Individual |
| 6.30-7.30 | DINNER | |
| 7.30-8.15 | Giving a talk Video recording | Small groups of 5 |
| 8.15-9.00 | Reviewing presentations Video replay and analysis using individual checklists | Small groups of 5 |
| 9.00-9.30 | Issues arising from Workshop General discussion | General session |

The rapid growth in interest in minicourses throughout Australia has been such that Macquarie University was requested to design a programme on how to present a minicourse. This in itself was produced as a minicourse since part of the approach is to use exemplary models wherever possible. This minicourse has now been taken by many hundreds of people throughout Australia and by dozens of overseas visitors from Asia and the Pacific. It has facilitated a rapid growth of the minicourse movement throughout the region.

The rationale, purpose, aims and objectives of this special minicourse are set out below.

M61: HOW TO PRESENT A MINICOURSE

Course for Minicourse Leaders

Minicourses are self contained learning units for adults designed to achieve specific education and/or training objectives in a short span of time - optimally about eight hours. They stress the achievement of professional skills and involve maximum participation and interaction. Each minicourse, and each activity within a minicourse, is designed on an educational technology (systems) model. That is, there are input, processing and output cycles arranged in linear chains. Activities depend a great deal on group work and group process and therefore a minicourse, as defined here, is not designed for the independent learner working alone.

Minicourses have proved to be especially effective in improving professional skills of teachers and trainers. As the approach is now quite widely used in Australia there is an increasing demand for presenters who have been trained in the rather special and somewhat sophisticated techniques involved in the effective presentation of a minicourse.

Purpose: This course is for any educator/trainer, who, in the role of course leader, may wish to present an effective minicourse for a group of adult learners. The course is not concerned with processes of design but stresses skills of effective presentation. The course should also be of general interest to teachers and trainers as an example of the precise application of the principles of educational technology in the practical implementation of a specific learning experience.

- Aims:**
1. To develop understanding of the characteristics of minicourses and their roles in education and training.
 2. To develop an appreciation of the educational technology basis of minicourse design and presentation.
 3. To develop some facility in the specific skills involved in being an effective leader/presenter of minicourse.
 4. To enhance confidence of teachers and trainers in their ability to function effectively and efficiently as a minicourse leader.

Objectives: After completing this course you should be able to:

1. Identify those elements of a minicourse that are based on the principles of educational technology.
2. Evaluate the relative effectiveness for teaching adults, of a range of strategies and methods appropriate for minicourses.
3. Identify and discuss examples of the application of behavioural psychology in the design and presentation of a minicourse.
4. Identify specific teaching and training skills required for the effective presentation of a minicourse.
5. Demonstrate a selected range of specific teaching and training techniques for effective presentation of a minicourse.
6. Analyze and evaluate representative teaching episodes within a minicourse in terms of input, processing and output cycles.
7. Use a minicourse training manual effectively and efficiently to co-ordinate the activities of a group of minicourse participants.
8. Lead one segment of a minicourse demonstrating essential presentation skills.

Minicourse Approach

PROGRAMME - M61

| Session I | Topic and Activity | Grouping |
|-----------|--|--------------------|
| 4.30-5.15 | What is a minicourse? | General session |
| | (i) Slide/tape presentation | |
| | (ii) Analysis of a checklist of minicourse characteristics | Small groups (4-5) |
| 5.15-5.45 | Educational technology basis of the minicourse | General session |
| | (i) Short talk | |
| | (ii) Discussion and completion of a grid relating the educational technology basis with conditions which facilitate learning | Pairs |
| 5.45-6.30 | Implications of the systems model for presenting a minicourse | |
| | Workshop in which participants review each phase of the systems model and consider implications for effective presentation | Small groups (4-5) |
| 6.30-7.30 | DINNER | |
| 7.30-8.30 | Modelling in minicourses | General session |
| | (i) Brief talk on modelling | |
| | (ii) Analysis in syndicates of three aspects of the first two hours of this minicourse: Structure, strategies, presentation | 3 Syndicate groups |
| 8.30-9.30 | Strategies and skills involved in presenting a minicourse | |
| | (i) Individual reading on characteristics of adult learners | Individual |
| | (ii) Workshop to identify effective presentation skills | Pairs |

| Session II | Topic and Activity | Grouping |
|------------|--|--------------------------------|
| 4.30-5.15 | Using a minicourse manual | |
| | (i) Brief talk on the organization of the materials in the manual | General session |
| | (ii) Discussion of the issues which potential course leaders must consider in order to turn a manual into an effective minicourse | Small groups (4-5) |
| 5.15-5.45 | Preparing to teach a minicourse | |
| | (i) Discussion of the pros and cons of a team approach to teaching a minicourse | General session |
| | (ii) Scan reading of pre-course preparation checklist | Individual |
| 5.45-6.30 | Key presentation skills | |
| | (i) Illustrated talk on presentation skills | General session |
| | (ii) Workshop in which participants brainstorm methods of developing key presentation skills, and devise a "mini" minicourse to develop one particular skill | Small groups (4-5) |
| 6.30-7.30 | DINNER | |
| 7.30-9.20 | Key presentation skills continued | |
| | (i) Simulation in which each group in turn presents a mini training experience to train participants in a particular skill | General session |
| | (ii) Evaluation of the presentation skills of each group | General session |
| 9.20-9.30 | Making the covert overt | Individual and general session |
| | Analysis of the minicourse programme using a checklist | |

VI. UTILIZATION IN ASIA AND THE PACIFIC

The minicourse approach is very suitable for meeting the training needs of the Asia and Pacific region in many diverse areas. The general advantages of the method are as follows:

- The approach is extremely flexible. As each minicourse is a self-contained, the units can be combined in any sequence and pattern to meet varying needs.
- Minicourses are economical of time and resources. No participant should need to be committed to more than eight to ten hours of training at a time. This type of training can be readily slotted into other activities and is especially suitable for "on-job" training.
- The model is ideal for application in a variety of situations such as retraining; upgrading of professional skills; and for generally improving the quality and standards of supervision and management.
- Minicourses are transportable. The packaging in the form of a training manual, combined with the guidance and training given to potential minicourse leaders, makes it easy to decentralize a training programme and facilities use over a wide geographic area.
- The minicourse format is readily adaptable to changing needs and circumstances. New titles can be added, programmes that have met past needs can be withdrawn and current minicourses can be modified to meet minor changes in training requirements or to cater for regional and local needs.
- An emphasis on the acquisition of practical skills ensure that participants will upgrade those competencies immediately relevant to their current professional activities.

Examples of areas of training in Asia and the Pacific where minicourses would be especially applicable are given below. On the whole they are not recommended for basic pre-service training. The degree of "compression" characteristic of the approach requires that the learners have some degree of competency in the area concerned or in a related area. Minicourses are especially suitable for building on skills already developed; for providing alternatives; for widening and deepening knowledge and understanding; for retraining and for generally upgrading on-the-job competencies. The following account is not exhaustive. I merely lists some examples of possible applications.

A. Teaching and instruction

Almost all aspects of teaching and instruction other than basic pre-service training can be covered by the minicourse approach. The following examples are especially appropriate for the minicourse model.

1. In-service education

Accelerated training is both possible and necessary to refresh the knowledge and enhance the motivation of teachers; to update their knowledge in selected, new content of courses to keep teachers posted with new methods and media, and to present them with selected successful instances of innovations in classroom organization, teaching methods, evaluation practices or use of community resources. Minicourses could cater for all levels of need in these areas.

2. Instructor training in non-formal education

Various type of instructors for non-formal programmes such as functional education; functional literacy, and specific vocational subjects and certain areas are urgently required in almost all countries of Asia. In many cases teachers from the formal educational system are recruited and they urgently required re-training. Minicourses are an ideal way of meeting this need.

3. Functional literacy

Many literacy programmes in Asia and the Pacific are taught by volunteers, many of whom have had no formal training. Minicourses could provide a flexible set of resources for the training of these people.

4. Health education in primary grades

Teachers of primary grades are expected to impart proper attitudes towards health; inculcate healthful habits and train children in the basic skills needed to care for themselves and others. They frequently lack the skills required for their tasks. Minicourses could also be used to train these teachers for preliminary diagnosis of diseases, for which short training courses are known to be quite effective.

5. Writing teacher-made tests

Frequently a generally trained teacher lacks knowledge of evaluation skills and in particular how to construct an effective test. The concepts of test construction and the techniques of developing relevant and effective tests can be conveyed by minicourses. A central aim would be to ensure that tests check-up on the achievement of meaningful objectives applicable to real life.

B. Curriculum

Both development and evaluation aspects of curriculum require back-up training. These areas are especially important in those countries of Asia where there are limited resources for the development of resources and for conducting field trials.

1. Curriculum developers

In all countries of Asia and the Pacific educational systems are concerned about designing curricula relevant to national, regional and local needs. Curriculum makers need in-service training to gain experience in the newer technologies and processes of curriculum development. Minicourses can be designed for this purpose.

2. Curriculum evaluators

The newer techniques of curriculum evaluation are not always known to curriculum makers. Whoever is responsible for evaluating the curriculum could gain the necessary basic skills through a minicourse training programme.

C. Educational materials

While many aspects of production and evaluation could be covered through minicourse training, two areas are of critical importance in the Asian region.

1. Resource evaluation

Those responsible for policy decisions regarding the production and acquisition of educational resources need to know how to assess the suitability and effectiveness of such resources. They should also know how to survey what resources are available and to determine policy regarding development and production of new resources. Minicourses could provide the training necessary.

2. Textbook development, including illustrations for textbooks

While the need for the production of locally created textbooks is very urgent in the Asian region, facilities for training textbook writers and illustrators are frequently limited. It should be possible to identify categories of personnel involved in the various aspects of textbook production, including textbook illustrators, and to prepare a series of minicourses to provide a crash training programme.

D. Resource centres

Throughout Asia there is a rapid development in the provision of material resource centres of all types, some centrally and some locally. In some cases school facilities such as libraries, workshops and laboratories are being put to multi-purpose use.

1. Training workers in educational media

Minicourses are especially suitable for training in specific skills such as those involved in using and producing all types of educational media. As educational media are now widely used in the Asian setting, this is an area of special significance. Educational media are being used for example to overcome problems arising from lack of access to certain facilities and to combat illiteracy. Identification of media commonly used in community development programmes could be the starting point of a programme for training people in their effective use.

2. Proper utilization of school workshops and laboratories

There is a growing tendency for these facilities to be used for both full-time classes and for part-time evening studies for other members of the community who may need practical training in various practical skills. Minicourses could be provided for laboratory assistants, workshop instructors and teachers in the skills required to make multiple use of workshops and laboratories.

3. Teacher librarians

More and more frequently teachers are required to perform the role of a change agent. For example, teachers may be expected to develop and maintain reading rooms and libraries in community centres or within the schools to cater for parents and other community members. Such teachers need to be trained in the special skills involved in such work. Minicourses could be used for this purpose.

4. Administrators of resource centres

The growth of resource centres needs to be accompanied by a training programme for the management such centres. Some resource centres are centrally located in a local region and are required to serve the entire local community. Another model is to assign a central school as the co-ordinator of a cluster small schools. Both approaches have special administrative needs and require well organized training programmes in the necessary administrative skills. Minicourses could provide the necessary training.

E. Vocational education

Almost all areas of vocational educational can be covered by the minicourse approach but the following aspects are perhaps of special importance for Asia.

1. Training local experts to help local people

In many Asian communities there are skilled workers and craftsmen who are highly competent in their crafts who are willing to train others. They are, however, in need of training in how to assess the needs of the local people, to prepare training programmes and to undertake the training of others. Minicourse could be developed for this aspect of non-formal education in the community.

2. Vocational guidance

In most Asian countries the majority of the students at secondary level attend a general education course, which in most cases does not impart the skills needed for entering the world of work. Schooling may not lead to employment or self-employment. This calls for early educational guidance at the end of the primary or elementary education. This guidance could be undertaken by primary school teachers and/or other educators who could be prepared for this role through special minicourses.

3. Work safety

Work safety is frequently overlooked in many industrial enterprises, due to the lack of sufficient emphasis on this in school workshops, laboratories and during field work. Inculcating proper work safety habits should start at school. This would necessitate special minicourses on work safety for school teachers, laboratory assistants and workshop instructors. Other minicourses for out-of-school population relating to road safety, work safety and similar areas could also be organized.

4. Work ethics

Inculcating proper working habits; hygiene of work; work attitude; appreciation of manual work; proper organization of tool rooms, stores, tools and instruments; observing technical specifications, standards and required levels of precision could all be initiated through special minicourses.

F. Planning, administration and supervision

Three aspects of special application in the Asian region are appropriate for the minicourse model.

1. Orientation of administrators for introducing minicourses

Minicourses are a relatively new idea. Administrators should understand the characteristics and potential of the minicourse model and its possible applications in a local context. Minicourses could be provided to increase awareness and understanding of this new training approach.

2. Management style and procedures

Change and development in education have presented new challenges and problems in administration. In order to meet these new problems new innovative administrative styles and procedures are required. Minicourse may be developed on how to analyze the emerging problems and needs and on how to devise new innovative administrative procedures to meet challenges and solve problems.

3. Supervision

Educational technologies and methodologies are rapidly changing in both the formal and non-formal areas. There is urgent need for virtually continual retraining in appropriate staff supervisory skills for developing and changing projects. Minicourses can be used for this purpose.

G. Special programmes

The following three examples are only a few among very many special projects that could be given training support through the minicourse approach.

1. Training community leaders to help local people in utilizing local resources

An important priority in most developing countries is to

Minicourse Approach

maximize the use of all available facilities and infra-structures, for community development. Minicourses would be very suitable for training community leaders in the skills required for this task.

2. Extension work

By extension work is meant the popularization of the vast amount of research and development going on in any community. This is especially important in the case of non-formal education where teachers need to be trained in the skills of extension work. The techniques of writing simply about complex issues and the methods of organizing extension programmes are skills that could be developed through minicourses.

3. Distance education tutors

Programmes of distance education are spreading rapidly throughout the Asian region. Such programmes require very special methodologies and tutorial styles. Tutors originally trained for conventional programmes need retraining for distance teaching, particularly in guiding students in the use of resources and in how to make the best use of limited contacts with tutors. Minicourses are especially suitable for this type of training.

4. The education of women

Many countries have special programmes for the education of women and these require specially trained administrators, curriculum workers and presenters. Minicourses could be used for a basic training programme in this area.

VII. GUIDELINES FOR ADAPTATION FOR DEVELOPING COUNTRIES

The following guidelines review some issues that may need to be considered for adapting minicourses to the needs of developing countries.

A. Basic design

Whatever else may be modified or adapted it is essential to maintain the short format; the unitary, self-contained nature of the minicourse; the fact that the basic approach is through participatory workshops involving group work and that the design is based on input-process-output sequences. Other aspects may be changed or modified to meet local needs but departure from the above basic principles would virtually mean abandoning the minicourse approach.

B. Adaptation of existing minicourses

A basic decision could be made whether to adopt an existing minicourse without change; to adapt an existing minicourse for local needs or to develop an original minicourse from first principles. In deciding whether to adopt a given minicourse the main criteria are relevance of the objectives and level of treatment. In deciding whether an adaptation would be economically feasible some assessment should be made of the degree of change needed for each section of the manual:

- Introductory (including objectives)
- Activities
- Evaluation
- Background and further reading
- Leaders notes
- Enrolment procedure
- Resources

If massive changes are required it would be more economical to develop a new minicourse from first principles.

Existing minicourse models, do, however, form useful general models for possible try-outs, design and structure.

If the loose-leaf format is retained the production of various alternative editions is a possibility. Changes in only a few pages of the training manual are sometimes sufficient to meet the needs of, say, different regions or sub-groups of participants.

Minicourse Approach

C. Job and content analysis

One effective way of catering for local needs is to start the development of a programme of minicourses from a job analysis or content analysis approach.

In the case of a job analysis, a given job, say teaching history in secondary school, is analyzed to identify the duties expected, in the case of a history teacher. These may be lesson preparation; classroom presentation; resource development; testing and evaluation; parent relationships and so on. For each duty tasks are then itemized and these in turn are analyzed into task elements.

In content analysis the same procedure is followed except that the subject discipline or area of subject matter is first divided into major areas, these in turn are divided into concepts and concepts are divided into principles, generalizations and definitions.

These processes are shown in diagrammatic form in figure 5.

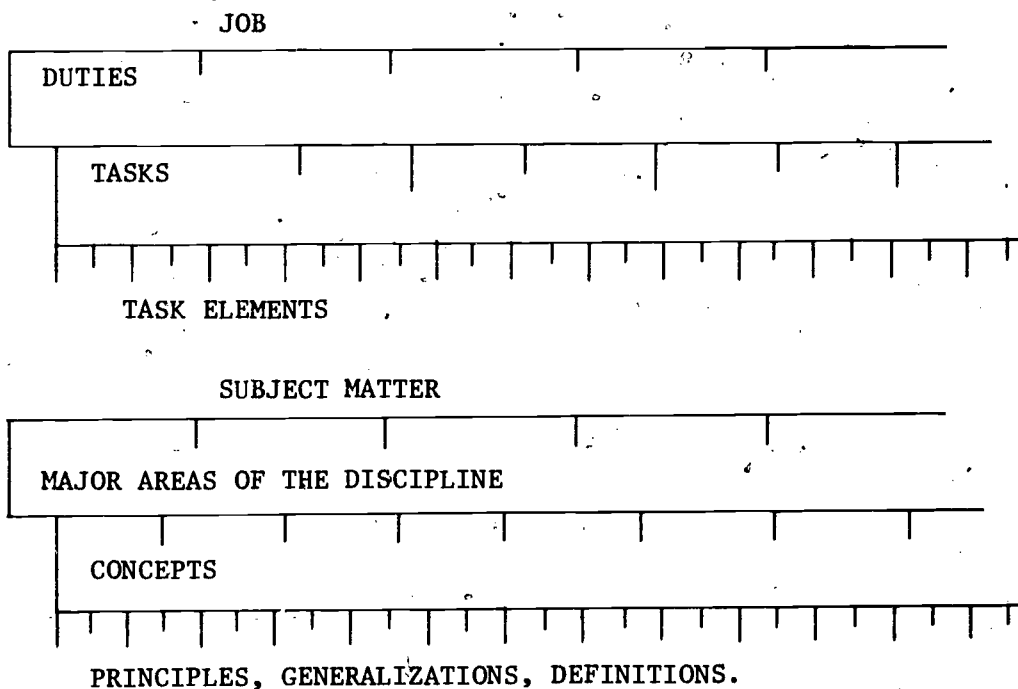


Figure 5. The process of job analysis and content analysis

Minicourses can then be developed for one or more duties or for a related group of tasks or for a concept or group of concepts, according to whether training is to be based on job competencies or understanding conceptual material.

Groups of minicourses can be developed in this way to cover whole areas of training needs. If this procedure is adopted, however, it is important to ensure that while certain minicourses are related, together perhaps providing for total training for a job or a given area of knowledge, they must remain discrete self-contained units. These units may then be combined and recombined in various sequences to develop total programmes to meet a variety of needs.

D. Leaders' notes

Because the leaders' notes provide guidance and instructions for potential minicourse leaders they should be written at a level of detail appropriate for the types of people likely to be recruited for this role. All activities should be explained and discussed in detail and suggestions should be given on how to make the presentation most effective. The learning outcomes expected from each activity should be identified and listed. Wherever possible "samples" or exemplars should be given of the types of products that have emerged from previous courses. These should not be thought of as "models" but as examples of the outputs of typical groups of participants.

E. Style, timing and pacing

The style and level of treatment should be suitable for the participants. Because the training manual is designed for use in a practical workshop situation the explanatory notes should be short and written in a clear and simple style. The directions should be direct and in list form.

Timing is important. No minicourse should be designed for longer than one day. A minicourse is an intensive form of training and its pace could not be sustained for an extended period. Some minicourses, however, may be shorter than one day, say two, four or six hours only.

Pacing is also important. This should be carefully judged to suit the participants. Sufficient time should be given to complete and consolidate all activities. The changing pattern of grouping and regrouping should keep the minicourse moving forward without disrupting learning by requiring change for change sake.

Minicourse Approach

F. Media

Minicourses utilize a multi-media approach. The more varied the types of media used for input phases the more effective the minicourse. In addition some media may be needed for the processing phases. Television recording and replay is especially useful in this regard. In certain minicourses non-print media may also be required for output phases. This is true in the case of minicourses concerned with training in the development of media resources e.g. slide sets; study prints and audio programmes.

In selecting media for a minicourse the usual criteria should be applied, such as matching each message with the most appropriate medium. In developing countries, however, cost is frequently an over-riding factor and sometimes less expensive media must be selected. This can usually be achieved by careful selection of alternatives which, with some adaptations elsewhere in the programme, can work virtually as effectively as more expensive materials. A table of media substitutions is given on the next page to facilitate this process.

G. Training

The implementation of a minicourse programme should be accompanied by an efficient and effective programme of training.

Administrators need to be trained to develop an understanding of the nature of the minicourse design and its potential as a training tool. They should understand the administrative implications of developing and using minicourse.

Presenters should be trained in how to mount a minicourse, and in particular in how to utilize all aspects of the training manual for maximum effectiveness. As minimum all presenters should experience a minicourse on how to present a minicourse and should themselves attend a number of minicourses.

Developers of minicourses also need training. This training should be in design and in the processes of development and production. Stress should be given on the importance of organizing and implementing development teams.

H. International co-operative development

It may be possible to organize a co-operative programme to design, develop and produce prototype minicourses which could be then redeveloped by individual countries and issued as regional

and/or local editions. Such a co-operative programme could focus on general competencies in a wide range of areas such as school teaching, vocational and technical education, the education of disadvantaged groups and non-formal education.

MEDIA SUBSTITUTION TABLE

Minicourse Approach

| | Printed graphics | Board displays | Charts and posters | Study prints | 35 mm slides | Strip films | OHP transparencies | 8 mm/Super 8 movies | Audio-tape programmes | Real objects | Models & other simulated objects | Slide-tape programmes | Video-tape programmes | Simulation games | Printed text |
|------------------------------------|------------------|----------------|--------------------|--------------|--------------|-------------|--------------------|---------------------|-----------------------|--------------|----------------------------------|-----------------------|-----------------------|------------------|--------------|
| Printed graphics | | x | x | x | x | x | | | | x | x | | x | | |
| Board displays | x | | x | x | x | | x | | | | x | | | | |
| Charts and posters | x | x | | x | x | | x | | | x | x | | | | |
| Study prints | x | x | x | | x | x | x | | | x | x | x | | | x |
| 35 mm films | x | x | x | x | | x | x | | | x | x | x | x | | x |
| Strip films | x | | | x | x | | x | | | | | x | | | |
| OHP transparencies | x | x | x | x | x | x | | | | x | x | | | x | x |
| 8 mm/Super 8 movies | | | | | | | | | | | | x | x | x | |
| Audio-tape programmes | | | | | | | | | | | | | | | x |
| Real objects | x | | x | x | x | | x | | | | x | | | x | |
| Models and other simulated objects | x | x | x | x | x | | x | | | x | | | x | | |
| Slide-tape programmes | | | | x | x | x | | x | | | | | x | | x |
| Video-tape programmes | x | | | | x | | | x | | | | x | | x | x |
| Simulation games | | | | | | | x | x | | x | x | | x | | |
| Printed text | | | | x | x | | x | | x | | | x | x | | |

Crosses indicate media that may be interchanged or substituted for each other without severe loss of educational effectiveness.

VIII. A CASE STUDY - APPLICATION OF THE MINICOURSE APPROACH IN THAILAND

There is a growing interest in Thailand in the multi-media approach for various aspects of training and retraining. This is especially the case in the training and retraining of teachers and supervisors in formal education, and the training of community developers, organizing tutors and facilitators in non-formal education. The minicourse approach is therefore a very appropriate model for the needs of Thailand. Minicourses can be applied in a great many areas. The following examples give some indications of the areas of priority for minicourse development.

A. Areas of priority

1. Formal education

- a) Training packages for the in-service education of teachers Teachers need reinforcement and continued exposure to new ideas and practices to improve day-to-day teaching. Subjects can be analyzed into single concepts and groups of concepts e.g. "letter writing" as a concept area in English language courses. Each concept area could be upgraded through minicourse training.
- b) Remedial instruction Problems of organizing remedial classes for slow learners are now under close review in formal education in Thailand. The development of minicourses on areas of learning difficulty in many subjects would solve problems common to most schools in the country. They would provide support facilities for teachers and do a great deal to raise general standards.

2. Non-formal education

- a) Functional literacy programme The rate of illiteracy in Thailand has already declined from 18.0% in 1970 to 14.5% in 1981. The present programme is designed to reduce the level of illiteracy to 10.5% by 1986. The non-formal education department of the government is accelerating this process through a nation wide campaign. The aim is to campaign against illiteracy by improved efficiency in administration, supervision, monitoring, organizational development and tutoring at the grass-roots level. The department needs to

Minicourse Approach

train numerous organizers and part-time tutors, a task-force of some 25,000. The need is urgent and short condensed training methods are required. Minicourses are especially appropriate for this purpose. They can be provided virtually simultaneously in every part of the country and would greatly facilitate the training.

- b) Adult vocational education Thailand is currently developing several types and sets of programmes in vocational education for adults. These include interest group training; self-improvement programmes; and self-employment training. This training can be accomplished through minicourses. Teachers of vocational education already have a basic knowledge of their subject areas but need some retraining in teaching skills. Minicourses are ideal for this purpose.
- c) Radio-correspondence programme This programme is now well developed in Thailand. It provides opportunities for learners in remote areas to gain an education. Participants enrol in selected courses and have special broadcast programmes which they can listen to "on-the-job" in fields or shops. Classes meet in person each Saturday to review the lessons of the week. These classes are conducted by course organizers. These organizers require annual training programmes to improve the quality of their teaching and minicourses could be used for this purpose.
- d) Open learning programme This is an innovative programme initiated by some Regional Centres of the Department of Non-Formal Education. Open learning centres are being established for any groups who express interest in studying a particular area. Minicourses on these areas of interest would greatly assist tutors and organizers in increasing the effectiveness of the programme.
- e) Functional education programme for levels 3 and 4 This programme is crucially important in Thailand in serving the basic educational needs of learners who were unable to attend formal schools. Teachers need to be especially trained for this area of teaching and the minicourse approach is probably the most suitable for meeting the needs of the programme. Minicourses are being used in this programme at present and their application is described below in greater detail.

Minicourse Approach

education programme. A manual for the basic retraining of this group of teachers was tried out and revised then published by the Department of Non-Formal Education in July 1981.

While this manual provides a basic training/retraining programme it is considered that there is need for further training materials:

- for training the trainers of the FE programme
- to provide resources that teachers can use in their functional education programme

It was decided that minicourses should be produced for both these purposes and the following model was developed. (see Figure 7).

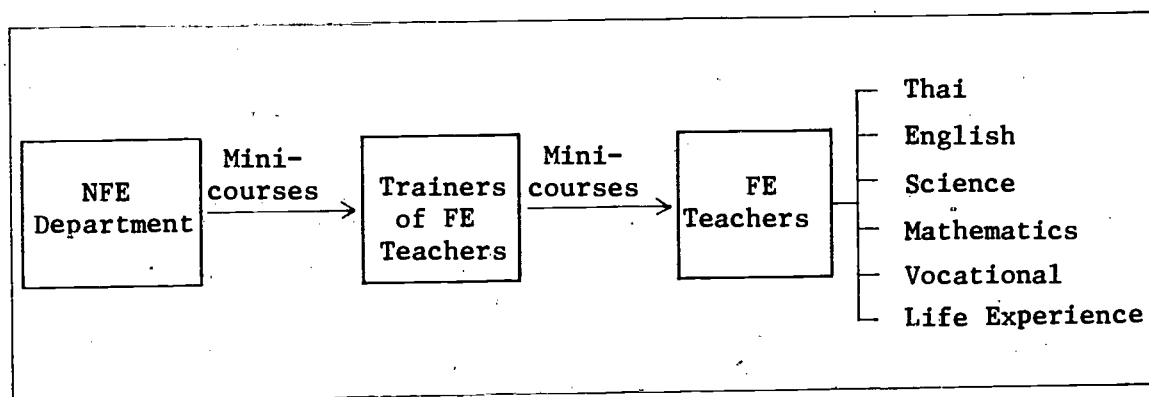


Figure 7. A training model for teachers of functional education in Thailand

The trainers of the trainers in Thailand are few in number and not all have the necessary skills and knowledge of content of the functional education programme. Training needs are especially critical in the following areas:

- policy of the non-formal education programme and the concept of non-formal education
- the nature and techniques of open-ended teaching methods
- content of six areas of subject matter: Thai, English, science, mathematics, vocational education and life experience.

It was decided to produce minicourses for all these areas with the minicourses having the double function of training both the trainers of the FE teachers and the FE teachers themselves.

A seven-day workshop is to be held in July 1982 at Lam Praplerng Dam, Nakornrajsima Province. The participants will develop the minicourses needed for the programme. Suggested activities will be tried-out and validated during the workshop. Prototype minicourse training manuals will be produced and given field trials in August and September 1982. These trials will be conducted by four Non-Formal Education Centres and by the Development Division of the Department of Non-Formal Education. Production of the revised manuals is scheduled for January - May 1983. They will be distributed to all training sectors in both regional and provincial centres of the NFE network and will be used for training the FE teachers of levels 3 and 4. The minicourse manuals will be produced in both Thai and English language editions.

In order to assist with the development of appropriate minicourses, a sample programme has been devised as the first unit is a series of four or five to cover the subject "Life Experience". This will be used during the workshop scheduled for July 1982. The purpose, aims and aspects of programme of this minicourses are set out as follows:

A SAMPLE MINICOURSE PROGRAMME

Teaching about life experiences

The life experience course for functional education levels 3 and 4 is very important for improving the quality of life. It is a very broad subject without fixed content for all groups. It covers a rapidly changing area reflecting changes in society and the needs of individuals. The course is the only fully compulsory unit in the functional education programme and is the largest in terms of time and content. The life experience part of the functional educational programme is therefore of critical importance. This minicourse is designed to help teachers understand the nature, scope and methodologies of the course and to teach it effectively.

Minicourse Approach

Purpose: While this minicourse is designed mainly for those who will be teaching the life experience course, it should also be of interest and value to other teachers involved in life experience programmes in formal education. The minicourse should be useful for curriculum workers; community development workers and other relevant groups.

- Aims:**
1. to appreciate the significance and role of the life experience course in the functional education programme;
 2. to understand the objectives and scope of the life experience course;
 3. to appreciate the special approach needed for the life experience course;
 4. to know how to organize the life experience course to ensure effective teaching;
 5. to know how to conduct the course;
 6. to know how to assess and evaluate the learners programme.

Objectives: At the conclusion of this minicourse you will be able to:

1. discuss the role, key issues, concepts and significance of life experience education;
2. describe the components of the course;
3. list and specify the topics of each component;
4. explain criteria for the selection and sequencing of the topics to be studied;
5. identify methods of teaching appropriate for adults;
6. identify types of resources required for the course;
7. describe methods of testing and assessment appropriate for the course.

THE PROGRAMME

Session I

| <u>Time</u> | <u>Topic and Activity</u> | <u>Grouping</u> |
|--------------------|--|---------------------------|
| <u>8.30-10.30</u> | <u>Significance, key issues and concepts of the life experience course</u> | |
| 8.30-8.45 | i) Introductory talk-by course director on the importance of the course - illustrated by wall charts | Plenary |
| 8.45-9.00 | ii) Review of a list of basic issues and concepts, including course objectives | Plenary |
| 9.00-9.30 | iii) Brainstorming to clarify, categorize and select key concepts and issues | Syndicate groups (5 to 8) |
| 9.30-10.00 | iv) Discussion of categories | Syndicate groups (5 to 8) |
| 10.00-10.30 | v) Discussion of group reports | Plenary |
| <u>10.30-11.15</u> | <u>The components of the course</u> | |
| 10.30-10.40 | 1) Introductory comments | Plenary |
| 10.40-11.00 | ii) Card sorting activity to group the components of the course by various criteria. Preparation of poster displays. | Small groups (4 to 5) |
| 11.00-11.15 | iii) Review of poster displays | Plenary |
| <u>11.15-12.00</u> | <u>The topics of the course</u> | |
| 11.15-11.45 | 1) Categorizing content using a checklist | Small groups (3 to 4) |
| 11.45-12.00 | ii) Discussion of checklist | Plenary |

Minicourse Approach

Session II

| <u>Time</u> | <u>Topic and Activity</u> | <u>Grouping</u> |
|------------------|--|--|
| <u>1.00-3.00</u> | <u>Methods of teaching</u> | |
| 1.00-1.15 | i) Introductory talk | Plenary |
| 1.15-1.55 | ii) Viewing film on methods of teaching | Plenary |
| 1.55-2.30 | iii) Discussion to identify types of methods and their advantages and disadvantages | Small groups (5 to 6) |
| 2.30-3.00 | iv) Presentation of group reports summarized on OHP transparencies and identification of methods appropriate for the course | Plenary |
| <u>3.00-3.45</u> | <u>Resources required</u> | |
| 3.00-3.10 | i) Introductory comments | Plenary |
| 3.10-3.35 | ii) Workshop discussions to prepare lists of: a) resources available in the community b) additional resources required c) methods of mobilizing resources | Small groups (8 to 10) |
| 3.35-4.00 | iii) Compilation of master list of resources for duplication and issue to all participants | Plenary session + Editorial group of 3 |
| <u>4.00-4.45</u> | <u>Testing and assessment</u> | |
| 4.00-4.15 | i) Study of two or three examples of test instruments | Small groups (5 to 6) |
| 4.15-4.45 | ii) Discussion of assessment methods | Plenary |

Conclusion of Minicourse

IX. EVALUATION CHECKLISTS

In organizing training through minicourses, continuing evaluation of all aspects is essential. The following checklists are designed to assist with this aspect. Two checklists are provided. (1)

A. Evaluation of the effectiveness of a programme design.

B. Evaluation of a given minicourse presentation.

A. A checklist for evaluating the potential effectiveness of a minicourse programme

The following checklist is designed to assist with the evaluation of the potential effectiveness of the design of a minicourse programme. It may be of one in the formative development of a new minicourse; as a device for selecting a particular minicourse for a given purpose or as a means of highlighting the characteristics of minicourse for potential minicourse designers or presenters.

Evaluate the potential effectiveness of a given programme on each of the following twenty criteria, using the rating scale below:-

4 = very satisfactory - no modification needed

3 = satisfactory - only minor changes required

2 = just adequate - considerable version required

1 = minimum standard - major revision and redevelopment needed

Indicate ratings by placing a cross (x) in each column needed 4, 3, 2 or 1 opposite each criterion. Join the crosses by straight lines to develop an evaluative profile.

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- (1) Meyer, G.R., Chan, E. and Jenkins, C. How to Present a Minicourse (Minicourse M61). Sydney Macquarie University, 1980.

Minicourse Approach

| Criterion | Rating | | | |
|--|--------|---|---|---|
| | 4 | 3 | 2 | 1 |
| 1. The course meets a real need relevant to the professional development of teachers or trainers | | | | |
| 2. The objectives are suitable and appropriate and are likely to satisfy the determined need | | | | |
| 3. The general objectives are expressed in clear, unambiguous behavioural terms | | | | |
| 4. The objectives can be realistically achieved in limited time (say eight hours) available to participants | | | | |
| 5. The level of treatment is suitable for the categories of teachers and trainers concerned | | | | |
| 6. The learning activities are arranged in a logical sequence that holds together as a coherent whole | | | | |
| 7. All activities are practicable in all reasonable situations likely to be encountered by those implementing the course | | | | |
| 8. All strategies chosen are appropriate for the objectives to be achieved | | | | |
| 9. The relationship between each activity and the media employed for that activity is always appropriate | | | | |
| 10. The activities and groupings of participants are sufficiently varied to maintain the interest of adult learners | | | | |
| | | | | |

| Criterion | Rating | | | |
|---|--------|---|---|---|
| | 4 | 3 | 2 | 1 |
| 11. The relative timing of the various activities is optimal. That is the rate of change from activity to activity is practicable and paced so as to maintain maximum interest and involvement | | | | |
| 12. There is strong emphasis on activity and participation | | | | |
| 13. There is an adequate emphasis on interactive group work | | | | |
| 14. There is adequate provision for giving participants feedback on the quality of their activities and products | | | | |
| 15. The programme is clearly based on linked chains of input-process-output cycles | | | | |
| 16. There is adequate provision to give reinforcement at key points throughout the programme | | | | |
| 17. There are adequate points in the programme for consolidation and review | | | | |
| 18. There is provision for some on-the-spot evaluation of the effectiveness of the programme | | | | |
| 19. The organization and 'packaging' of the minicourse is in the form of a self contained unit that is reasonably portable in the sense that it can be easily stored; repeated or transferred from institution to institution | | | | |
| 20. There is provision for some reasonable post course follow up | | | | |

Minicourse Approach

B. Evaluation of a minicourse presentation

The following checklist is designed to assist with the appraisal of effectiveness of the presentation of a minicourse. It could be used by course leaders as a self evaluative check on the quality of their presentation; as the basis of discussion in a programme designed to train minicourse leaders; or as a form of course evaluation by participants attending a particular minicourse.

Apply the following ratings to each of the twenty criteria provided the checklist.

4 = very satisfactory, no change require

3 = satisfactory but room for minor improvement

2 = adequate, but improvement needed

1 = unsatisfactory, considerable need for improvement

Indicate ratings by placing a cross (x) in the column headed 4, 3, 2 or 1 opposite each criterion. Join the crosses by straight lines to develop a profile.

| Criterion | Rating | | | |
|---|--------|---|---|---|
| | 4 | 3 | 2 | 1 |
| 1. The objectives were made clear at the outset | | | | |
| 2. Instructions were given clearly, simply and unambiguously | | | | |
| 3. Pacing was effectively managed so that the course moved smoothly from activity to activity | | | | |
| 4. The presenters took every opportunity to provide reinforcement | | | | |
| 5. Every opportunity was taken to give participants feedback on their activities and products | | | | |
| 6. Organization of groups was effective and efficient | | | | |
| 7. The presenters were effective as group facilitators | | | | |
| 8. Talks and other inputs were presented smoothly and in an interesting manner | | | | |
| 9. The presenters took adequate note of the needs and expectations of individual participants | | | | |
| 10. Relevant special knowledge, background skills and interests of individual members of the course were utilised as far as practicable within the framework of the programme | | | | |
| 11. The presenters were sufficiently flexible in their management of the course, when necessary changing emphasis and timing to meet specific needs of participants | | | | |

Minicourse Approach

| Criterion | Rating | | | |
|---|--------|---|---|---|
| | 4 | 3 | 2 | 1 |
| 12. Whenever appropriate, the presenters analyzed the processes of the course itself, making the covert, overt | | | | |
| 13. At scheduled points in the programme previous aspects of the course were adequately consolidated and synthesised through discussion and summary | | | | |
| 14. Discussion sessions were effectively and efficiently led by the course presenters | | | | |
| 15. The course presenters chaired "reporting back" sessions tactfully, sympathetically and supportively | | | | |
| 16. The presentation was authoritative without being authoritarian | | | | |
| 17. The atmosphere created by the presenters was one of a cheerful relaxed work team rather than reflecting a dominant input by a course leader | | | | |
| 18. Media were used efficiently and effectively | | | | |
| 19. Intervention in the work of leaderless groups was tactful, helpful, supportive and non threatening | | | | |
| 20. Products and activities were objectively and fairly analyzed focussing on outputs rather than on individuals ... | | | | |

X. REFERENCES ON MODULES AND MINICOURSES

APEID (Asian Programme of Educational Innovation and Development) Workshop for Development of Modules for Core Curriculum of Teacher Education, Bangkok, December 1977. Developing instructional modules for teacher education - handbook. Bangkok, Unesco.

In this recent workshop, ten modules for teacher education were presented. This report gives a summary of issues of modules development which emerged from the presentations. It has a list of guidelines for the development of modules, a section on evaluation of modules and some suggested follow-up activities proposed by selected participating countries.

Barrow, Joseph & Lakus, John W. (1973) How to plan and manage minicourses (A National Science Teachers Association "How to" series leaflet) Washington, D.C. National Science Teachers Association.

This article discusses the use of a system of minicourse modules to cover the school science curriculum. Aspects considered are: philosophy, format and teaching methods, organization and management, evaluation, and advantages and disadvantages of a minicourse science curriculum.

Creager, Joan G. & Murray, Darrel L. (1971) The use of modules in college biology teaching, Washington D.C., American Institute of Biological Sciences.

This collection of readings and reports centres on the use of modules to individualize instruction in college biology. It includes the work of many innovators and practitioners in the field, and discusses the problems and issues involved both in individualizing and in the development and use of modules. The publication is available free of charge from the Commission on Undergraduate Education in the Biological Sciences, 3900 Wisconsin Avenue, N.W., Washington, D.C., 20016, U.S.A.

Goldschmid, Barbara and Goldschmid, Marcel, L. (1973) Modular instruction in higher education a review. Higher Education Vol. 2 pp 15-32.

This useful general review discusses the educational principles involved in modular instruction; the implementation of a modular approach; management issues, and methods of production. Examples of modules are described, and some problems discussed. There is an excellent reference list. Highly recommended.

Minicourse Approach

Hamilton, James B. & Quinn, Karen M. (1978) Resource person guide to using performance-based teacher education materials (Professional teacher education series) Athens, Georgia, American Association for Vocational Instructional Materials.

This book gives an account of the remarkable series of over 100 self-paced training modules produced for technical education instructors by the American Association for Vocational and Instructional Materials in co-operation with the ERIC Centre for Vocational Education in the United States. The series includes every aspect of technical training and is an invaluable resource for teachers in this area.

Individualising Instruction (1973) (Educational Technology Review Series No. 5), Englewood Cliff, New Jersey, Educational Technology Publications, Inc.

This volume contains articles selected from Educational Technology magazine. Together they provide a view of the developments in individualizing learning in the five years before this publication. Note in particular the following three articles on the use of modules, minicourses and packages.

- The Unipac: a form and process for individualising, pp 112-4. (William B. Field and Gardner Swenson).
- The audio-tutorial system: incorporating minicourses and mastery, pp 120-22. (S.N. Postlethwait and Robert N. Hurst).
- Minicourses: individualised learning packages for teaching education, pp 131-8. (Walter R. Borg).

Mansell, Tony et al (1976) The container revolution. London, the Nuffield Foundation, Group for Research and Innovation in Higher Education.

As its title suggests, this is the report of a study on the current educational development of "containerising" learning activities in the form of self contained units and modules. It explores the rationale for this development (mainly individualisation and student choice) and considers some practical problems in implementation (such as organization, management of programme and assessment).

References on Modules and Minicourses

Meyer, G. Rex (1979) The development of minicourses (with a basis in educational technology) for the in-service education of teachers and trainers. *Programmed Learning and Educational Technology (PLET)* Vol. 16 No. 1, February 1979, pp 23-37.

The author describes the origin of minicourses from the audio-tutorial movement in the United States in the 1960's and distinguishes between minicourses and modules. The characteristics of minicourses are described and the input-process-output model of course design is thoroughly reviewed.

Meyer, G. Rex, Jenkins, Carole and Chan, Evalina (1980) *Catalogue of minicourses for teachers and trainers*. North Ryde, Sydney, Australia, 2113. Macquarie University School of Education, Continuing Education Programme.

This catalogue lists the aims, objectives, content and programmes of almost fifty minicourses available both as training courses within Macquarie University and as modular training manuals which can be separately purchased. Copies of the catalogue are free on application.

Pascall, Charles E. & Geis, George L. (1977) *Designing instructional modules (Module 3 of the series), Teaching and learning on individualised courses for instructors in higher education*. Montreal, McGill University.

This excellent module provides an opportunity for individualised training in the design and development of self-paced learning modules. It is especially helpful on the special techniques needed for test writing for modules. It provides an excellent model of what a module should be and is highly recommended.

The Asian Programme of Educational Innovation for Development (APEID) has as its primary goal to contribute to the building of national capabilities for undertaking educational innovations linked to the problems of national development, thereby improving the quality of life of the people in the Member States.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through over one hundred national centres which they have associated for this purpose with APEID.

The 21 countries in Asia and the Pacific participating in APEID are: Afghanistan, Australia, Bangladesh, China, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Socialist Republic of Viet Nam, Sri Lanka and Thailand.

Each country has set up a National Development Group (NDG) to identify and support educational innovations for development within the country and facilitate exchange between countries.

The Asian Centre of Educational Innovation for Development (ACEID), an integral part of the Unesco Regional Office for Education in Asia and the Pacific in Bangkok, co-ordinates the activities under APEID and assists the Associated Centres (AC) in carrying them out.

The eight programme areas under which the APEID activities are organized during the third cycle (1982-1986) are:

1. Universalization of education: access to education at first level by both formal and non-formal means;
2. Education for promotion of scientific and technological competence and creativity;
3. Education and work;
4. Education and rural development;
5. Education and urban development;
6. Educational technology with stress on mass media and low-cost instructional materials;
7. Professional support services and training of educational personnel;
8. Co-operative studies, reflections and research related to educational development and future orientations.