



**PARTICIPATORY
CURRICULUM DEVELOPMENT
IN AGRICULTURAL EDUCATION**

A training guide

Reprinted 1999

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PREFACE

This guide is about Participatory Curriculum Development (POD). POD is a new approach to the development of a curriculum. It brings together two different fields of activity in education - participation and curriculum development.

The focus of this guide is on the curriculum in a formal educational setting - a college or other form of educational institution. But POD can be used in non-formal settings also, for example, in agricultural extension. This guide is designed therefore to be relevant to those who work in curriculum development in colleges and extension services and other non-formal educational programmes

The main focus of the guide is on agricultural education. But the approaches to POD discussed here are independent of any subject area. They can be used in the development of any kind of curriculum.

The guide is aimed at all those who are engaged in some form of curriculum development. They may be educational managers (for example, in the Training Division of a Ministry of Education or Agriculture or other government department, or the managers of an educational training institution); they may be academic experts (say, in a University Faculty of Education) who are developing a curriculum for others to use; or they may be the teacher-trainers designing a curriculum for their own students to follow. It may be helpful for you to determine what kind of position you hold in the process of developing a curriculum.

The work of curriculum development is usually of two kinds:

a) it may be **adapting an existing curriculum** - trying to find space for new subjects such as environmental studies (for example) in an already crowded timetable; or updating an existing curriculum to cope with new ideas, new technology or new job needs etc.

b) or it may be **creating an entirely new curriculum**

The case studies on which this guide is based are examples of both kinds of curriculum development. Those who work in any form of curriculum development will find that POD can increase the effectiveness of their work.

This guide takes the reader step by step through the processes involved. Each step is explained, not just how to do it but why it should be followed in this way. Examples from various education programmes are drawn upon to show how the process works.

This guide may be useful for other forms of educational programmes as well. For example, some institutions may wish to use it as a tool for staff development. To this end, activities are suggested throughout the text to help the readers to apply what is being discussed to their own situation and experience. These activities are highlighted in "Activity Boxes".

We hope that you will wish to complete each box as it occurs in the text. Other boxes contain examples or case studies which illustrate some of the critical issues raised in the text.

It is important to realise that this guide is not intended to be prescriptive. It should be used critically and adapted to meet real situations. The general approach which it advocates - PCD - is one that the authors believe is necessary for any effective educational programme. But you will have to work out how to apply the general principles of PCD contained in this guide to your own situation. A relevant curriculum and good teaching methods make learning easier

and more interesting to students. We wish you success in using this guide. Your opinions are important to us. If you have suggestions or comments, we would like to hear from you.

Louise O. Fresco, Director
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Contents

<i>Preface</i>	<i>ii</i>
<i>An Overview</i>	<i>iv</i>
CHAPTER I: THE CURRICULUM	1
Part 1: The Curriculum: Definitions and Perspectives	3
Part 2: Educational Ideologies and the Curriculum	9
Part 3: Curriculum Development: Who is involved?	14
Part 4: Educational and Training Programmes and the Curriculum	24
CHAPTER II: LEARNING AND THE CURRICULUM	35
Part 1: The Nature of Learning	37
Part 2: The Learning Process	48
CHAPTER III: PARTICIPATION AND CURRICULUM DEVELOPMENT	59
Part 1: Participation and Stakeholders	61
Part 2: Stakeholders and Curriculum Development	67
Part 3: Working with the Stakeholders	75
CHAPTER IV: CREATING THE CURRICULUM	87
Part 1: Setting the Learning Objectives	89
Part 2: Translating Objectives into Curriculum Activities	106
Part 3: Participatory Evaluation and the Curriculum	116
CHAPTER V: MANAGING THE CURRICULUM	129
Part 1: Implementing the Curriculum	131
Part 2: Participatory Approaches to Staff Development	144
CHAPTER VI: Conclusion	151
Conclusion	153

AN OVERVIEW

Participatory Curriculum Development (PCD) thaws on two techniques at the same time, participation and curriculum development.

1. Participation

The purpose of participation in education as currently practised is to share the power of decision-making between both the teacher and the students.

Traditional approaches to education. In traditional education, all the decisions are made by the teaching institution - by the school, college or other institution in relation to the overall curriculum and by the teacher in relation to the classroom procedures.

Participatory approaches to education. Through participation in education, as in other forms of development, the aim is to involve the participants as far as possible in making decisions about their own education, such as what to learn, when, where, how and in what order.

The basic reasons for participation include the following:

- it helps to motivate the students if they feel that they ‘own’, at least in part, the programme of learning;
- it helps to make the material more relevant if the students can have a say in what they feel they need to learn; and
- it helps to make the learning process more permanent and will encourage the students to continue to learn independently after the course is over.

This process is often called ‘negotiating the curriculum’ with the students.

PCD: PCD goes further than this, however. It seeks to identify (beyond the teachers and the students) the people who are most interested in the learning programme. We call these people the “stakeholders”. PCD seeks to ensure the participation of this wider group in devising the curriculum. This does not usually happen, but it has been shown to bring about new forms of insight into what should be taught and how.

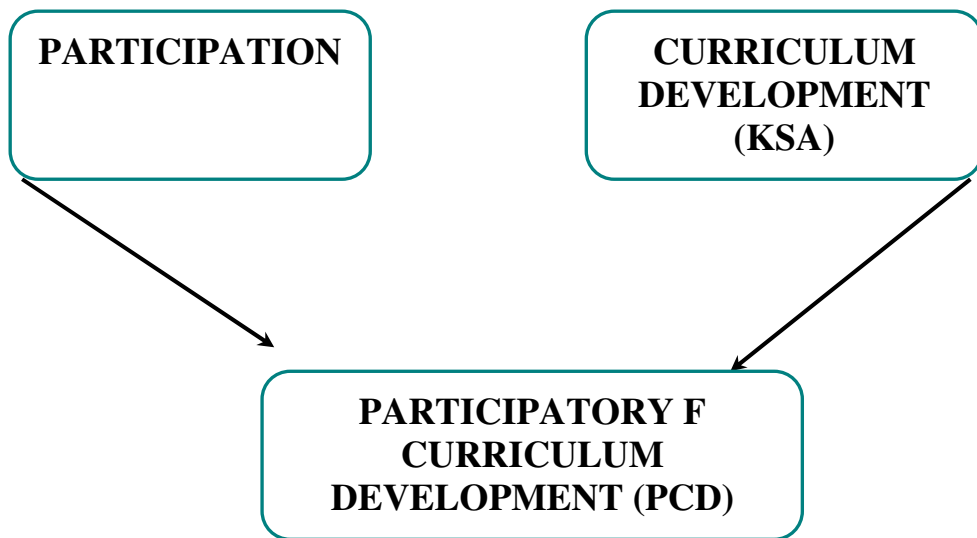
2. Curriculum Development

There are many forms of curriculum development in use among educationalists. It will not be our purpose here to discuss the varied strengths and weaknesses of them all, although some of them are discussed briefly in this guide

KSA approaches to curriculum development We have taken one model of curriculum development - that which is known as the Knowledge-Skills-Attitudes (KSA) approach - and applied it in a participatory way. This approach will be explained in more detail later, but it is important to appreciate that fully participatory approaches can be adopted with other models of curriculum development. What is needed is to identify as wide a range of stakeholders as possible and to share with them the process of developing the curriculum.

Fig. 1

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CHAPTER 1: THE CURRICULUM

- Part 1: THE CURRICULUM. DEFINITIONS AND PERSPECTIVES**
- Part 2: EDUCATIONAL IDEOLOGIES AND THE CURRICULUM**
- Part 3: CURRICULUM DEVELOPMENT: WHO IS INVOLVED?**
- Part 4: EDUCATIONAL AND TRAINING. PROGRAMMES AND THE CURRICULUM**

CHAPTER I: THE CURRICULUM

Part 1: THE CURRICULUM: DEFINITIONS AND PERSPECTIVES

Many teachers, educators and extension workers find themselves developing a training course for themselves or for others to use. Developing a training course is one example of a broad field of activity known as curriculum development.

Before looking at this process in more detail in relation to your own education and training courses, it is important to examine some of the general issues relating to curriculum development.

We will start by considering the following three issues:

- what is meant by a curriculum;
- what the curriculum will include;
- how the curriculum changes.

1.1 The meaning of ‘curriculum’

The question to ask at this stage is. What is a ‘curriculum’?

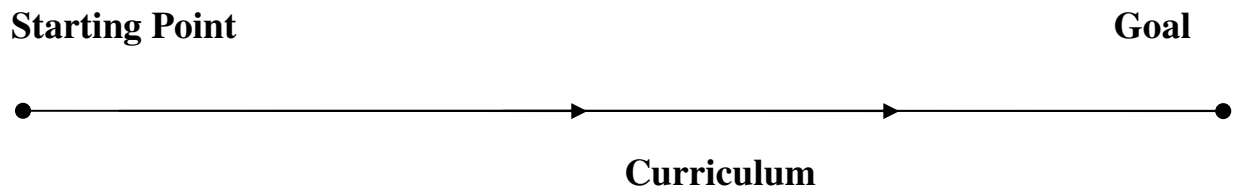
Activity Box No. 1

How would you define ‘curriculum’?

The real meaning of the word ‘curriculum’ can be demonstrated by looking at its origin. The word comes from a Latin word meaning race-course. It is the path which a runner or a horse needs to follow if he is to finish the race. This word is also the basis of the word ‘current’, meaning the course along which water or electricity for example flows.

We can set this out in the following diagram:

Fig. 2



When applied to education, the word ‘curriculum’ means all the activities which the students do, especially those which they need to pursue if they are to finish the course and to achieve the goal. It is the path they have to follow. It is not just the contents but also the programme, the course which they need to complete to be successful. And it also includes what they do outside of the classroom, on the sports field and in any spare time which the school, college or training institution may provide for them.

Because of this wide-ranging view of ‘curriculum’, many people have tried to define the word, but so far a definitive version has not yet been produced. The following are some selected definitions. The fact that most definitions relate to a school or formal education context reflects the lack of attention given in the past to curriculum development in a non-formal setting. After reading and discussing the topics in this guide, you might wish to revise the statement you have written above so as to produce a definition which you feel suits your own perspective.

Among the many definitions of the curriculum are the following:

- the learning experiences and activities that are provided by the school and society for the education of the child (Salia-Bao 1988)
- all the learning which is planned and provided for children at school (Hawes 1979)
- a framework for the enhancement and organisation of the varied and numerous experiences of students in the school setting and beyond the school (Skilbeck 1984)

There are several different elements here which it may be useful to disentangle:

- the learning which the students achieve;
- the activities and experiences which bring the learning about;
- the process of planning and organising these activities and experiences; and
- the piece of writing which embraces this planning

All of these have been called the ‘curriculum’ by different writers.

Most definitions of the term curriculum refer to all the learning which is planned and guided by the educational institution, whether in groups or individually, whether inside or outside the institution. The essential element behind many of the definitions is that the word ‘curriculum’ refers to those things which the students do more than those things which the teacher does. It is certainly not something which the teacher does alone. The curriculum is the process by which the students learn actively.

The curriculum and the syllabus: There is often confusion between the terms curriculum and syllabus. For many people, curriculum means a list of the subjects or topics at different levels which are taught by a teacher. This is not a curriculum; it is a syllabus. The syllabus is the list of contents of a course, **what** is to be taught. It does not necessarily deal with the issues of

how or **why** the subject matter is to be included or with the separate roles of the teachers and the students. The curriculum, on the other hand, is much broader than the syllabus.

1.2 What the curriculum includes

The question to be asked at this point is what is included in the curriculum:

Activity Box No.2

What should be included in your curriculum?

The curriculum, as many writers like Kelly (1989) have noted, is a broad area of study. It deals not only with the content, but also with the methods of teaching and learning. It deals also with the aims and objectives it plans to meet, and with the ways in which its effectiveness is measured.

These elements all relate to the course work of the education and training programme. But the curriculum will go wider than the activities in the classroom and any assignments which the teacher may set. It also includes the context in which the learning takes place.

This can best be illustrated by an example. If a teacher teaches in a lecture theatre in which everyone can see the teacher-lecturer but they cannot easily see each other, then the students will learn **indirectly** that all the really important knowledge is concentrated in the teacher, in the expert. If the teacher teaches in a more informal room, where the students are gathered round a table, where everyone can see and talk to each other, then the students will come to appreciate that learning is sharing different views and experience, that all can learn from each other, that the teacher can learn from the students as well as the students from the teacher.

Elements such as this are also part of the curriculum. They are sometimes called the '**hidden curriculum**' because they are rarely spoken about, rarely discussed and planned. But they are still real.

Key Point 1. What is the hidden curriculum?

The teaching institution and the classroom teacher create the hidden curriculum as well as the formal curriculum.

Some of the different things which students will learn even though the curriculum developers and/or the teachers will not have planned them, may include:

- that learning is boring, or that it is interesting;
- that learning is easy, or that it is difficult;
- that the teacher knows everything and the students know nothing, or that both know something and that it is a good thing if they share that something;
- that learning is knowing something, or that learning is finding out, solving problems. working things out:

Teachers then need to look carefully at their classroom work to see what lessons their students are learning from them, even though they are not discussing these subjects directly!

Most of the discussions in this guide will be centred on planning a curriculum, a path, for the students to follow. But when developing a curriculum, you will also need to watch carefully for the hidden elements, for these reveal (often very clearly) what you think and feel about the participants and they will pick up these feelings and ideas very quickly.

Contents/methods: This means that a curriculum is not just the subjects which are taught, or the subjects which the students study and, hopefully, learn. It also includes the **methods** used. Methods and contents are often treated separately, but in fact they cannot in practice be kept apart. If, for example, it is decided that a large amount of ‘facts’ needs to be dealt with, that will determine to a large extent the teaching-learning methods which are adopted. If on the other hand, it is decided that students need to learn how to do something or need to develop deeper understanding of some aspect of the subject, then that will argue for a more practical treatment, or for a longer time spent on the subject matter. Methods are inextricably linked to subject matter.

Methods are a major part of the curriculum, for the students learn as much from how they are taught as from what they are taught. For example, if a trainer talks for a long time about the need for extension workers not to talk too long but to listen to the farmers or other participants in their programmes, the students will learn more from how they are being taught than from what they are being taught. It is likely that they too will tend to talk too long to farmers and others.

This aspect of the curriculum pervades the whole process. For example:

- 1) students will learn one thing if the teacher tells them;
- 2) they will learn other things if they are shown them;
- 3) they will learn still other things if the teacher shows them first, and then encourages them to try things out for themselves;
- 4) they will learn yet other things if they are asked to find something out for themselves, if the teacher gives them a problem to solve and leaves them to solve it on their own.

In the first and second of these four cases, the students will learn that the teacher does not believe they can learn on their own, but that they are dependent on someone telling them or showing them. In the third and fourth cases, the students will learn that they are thought to be capable of learning on their own.

Again, in the first two cases, the students will learn that the teacher wants them to do things in the same way as the teacher does them. In the third and fourth cases, they will come to understand that the teacher wants the students to do things in their own way, not the teacher's way.

In the first two cases, the students will tend to believe that they are dependent learners. They will come to think that learning is passively receiving other people's knowledge. They will learn not to think for themselves but to copy. They will learn that it is wrong to make mistakes.

In the third and fourth cases, the students will learn that it is necessary for them to be active if they are to learn, that they must do it for themselves. They will come to understand that making mistakes is one of the best ways of learning so long as one reflects critically on those mistakes and tries things in a different way.

In the end, the formulation of a curriculum comes down to what the curriculum developers believe about the learner. Do they believe that the students are capable of learning by themselves? Or do they think that students cannot learn if the teacher is not present?

These beliefs are part of the hidden curriculum. The hidden curriculum will reveal far more fully than the written curriculum just what those who are planning and teaching the courses believe about their students.

1.3 The changing curriculum

The curriculum is not a fixed and authoritative structure which contains the organised content for learning. It is a dynamic instrument. It reflects the educational purposes to be attained and the educational experiences that should be provided to achieve those purposes. And since those purposes will change over time, so will judgements as to what are the best experiences likely to achieve the purposes. Thus, the curriculum will change and develop as the programme itself is implemented. There is a need for continuing curriculum reform as society itself develops and changes.

Three factors can be identified as having influences on the curriculum development process:

- a) *The educational ideology which the curriculum developers hold, including the current tendency towards the globalisation of the curriculum;*
- b) *the nature of the group of persons who are involved in the process of developing the curriculum; and*
- c) *the kind of educational programme for which the curriculum is being developed.*

We shall consider each of these factors in turn.

Activity Box N. 3

You may care to look again at the definition of a curriculum which you gave at the start of this chapter to see whether it refers mainly to content or whether it includes also methods (activities for the learners to do) and context. In particular, what elements of the hidden curriculum can you identify?

CHAPTER I: THE CURRICULUM

Part 2: EDUCATIONAL IDEOLOGIES AND THE CURRICULUM

Different educational ideologies will affect the way in which a curriculum is prepared. It is therefore important to examine the different positions from which curriculum developers may start.

In this section we will consider the following issues:

- changing ideologies and curriculum development; and
- contemporary trends in curriculum development.

The questions you need to ask yourself at this stage are the following:

Activity Box No Activity Box No 4

What kind of education do you want to develop?

What do you want it to achieve?

How do you believe it relates to society in general and specific groups in particular?

2.1 Educational ideologies and curriculum development

Education is seen by some as being directed towards the production of a social or professional elite. Others see it as bringing about the development of a modern person with scientific attitudes and skills, or the creation of an effective productive working force, or opening the door to self-development and personal growth, healing the injustices which are to be found in every society today. It is not possible for these ideologies to be held in conjunction: one cannot, for example, use education to create an elite and at the same time to reduce

'inequalities.' Whatever position the curriculum development agency takes upon these issues will undoubtedly influence the way the curriculum is developed. So a major influence on the process of curriculum development is clearly the educational ideology or philosophy which is adopted during the process itself.

Views on matters like this change over time. The function that education and training fulfil in modern society is not only an area of controversy, subject to changes in political control; it is also a part of the changing cultural concerns in any society. This, more than the development of new technology, is the fundamental reason for changes in curriculum today. The political concerns of today (for example, environmental issues) are different from those of even twenty years ago, and the education and training which any state provides for its members will usually reflect these changes. This is illustrated by a number of trends observed over recent years:

i) Politicisation of the curriculum

The power of teachers and trainers to decide what shall be included in the curriculum has in many cases been seized by politicians. The ideological basis of the curriculum is the reason why the curriculum at all levels of education and training has become increasingly political. In the past, it was accepted that educationalists shared the same ideologies as those who held power in society, but this view is no longer generally accepted. It is now often politicians and administrators rather than educationalists who decide what shall be taught and how. Education is a major political area.

ii) Globalisation of the curriculum

The politicisation of the curriculum is the main reason for one of the clearest tendencies to be seen today, the globalisation of education. Most types of curricula which are found commonly in education systems around the world today have had their origins and have been developed in Europe or the United States, the so-called 'developed world'. In these societies, the particular route along which the curriculum evolved depended largely on the ideological and political perspective of that society. As these perspectives change, so the curriculum will change - through the process known as curriculum development or curriculum reform. Education and societal change are closely related.

Curriculum development in the so-called 'developing world' is a continuous process, although some developing countries have imported ready-made curricula and used them without any adaptation, which has led to problems of unsuitability and irrelevance. Most countries which have imported curricula however, have adapted them, including elements of their own traditional systems, and developed them further to meet the perceived needs of the nation. This is to be seen particularly in the development of curricula which are required to be more relevant to life and work. Most countries are faced, with the dilemma of trying to provide education which will lead to the development of a large skilled labour force and at the same time prepare a professional cadre. The difficulty which many rural dwellers face in making a living from agriculture alone has brought into question the type of education which suits the needs of both the individual and the nation, for example. The debate and confusion over the emphasis on and support to vocational or academic education are far from resolved in most countries. At the same time, the explosion of scientific and technical knowledge and its applications has made the task of selecting what should be included in the curriculum much more difficult.

Increasingly, education and the curriculum have become influenced by global concerns. Organisations with an international or regional educational policy have had a strong influence on many countries. International organisations are becoming more and more influential in

setting world-wide norms about social, political and economic rights and what individual countries and the world as a whole are morally obligated to do. The adoption and operation of policies are becoming increasingly dependent on economic factors rather than political and ideological considerations. This will have important consequences for all those who work in education and training. As Teune (1990) states, “what has been learned about education systems... is that those countries that can afford them adopt them, with debatable costs and consequences”. There are inherent dangers in the adoption of educational programmes and practices which have been developed in a different context especially since education is being seen more and more as a panacea for society’s ills.

iii) Localisation of the curriculum

Although global influences are becoming more important, there is at the same time a trend towards decentralisation, towards the localisation of education, with increased community responsibility for education, towards educational institutions managing their own affairs. Although this does not often extend as far as the curriculum, which is still mostly centralised, it does encourage more participatory approaches to education which provide an amenable context for PCD approaches. Some institutions are beginning to demonstrate an internal shift in responsibility for the management of the curriculum. There is a growing recognition that staff who feel that they have a clearly defined role in the curriculum development process are more motivated and committed to its success. Cases of this are still rare in many countries, however.

2.2 Approaches to curriculum development

Different educational ideologies have emerged which, in practice, are in conflict one with the other. During the last hundred years, arguments raged over what should be learned and by whom. Some knowledge, such as scientific knowledge, was seen to be of more importance than knowledge associated with the arts and humanities. This debate continues today. The way in which learning is planned and organised has similarly been questioned. Whereas little attention was given prior to the twentieth century to expressing learning in terms of what specifically should be achieved and how this should be brought about, a great deal of effort has been made since the 1920s to treat curriculum development as a scientific process. Consideration has been given to planning, including the use of aims and specific objectives, methods of teaching and learning, materials and media development, and assessment and evaluation procedures. The adoption of a more systematic approach to curriculum development has certainly encouraged curriculum developers to think more carefully about the role of learners in the learning process, and brought about an increased emphasis on learner-centred approaches. Another issue now being addressed, however, is the role of the students in the development of the curriculum itself, and not only the students, but also other individuals or groups who have an interest or stake in the learning process and its outcomes

Two main models of curriculum development have emerged from the debate over the curriculum development process, the “classical” model, and the “participative” model (see Key Points 2 and 3). Underpinning the participative model is the belief that the learning process is most effective when it is “owned” by a wide range of stakeholders, including the student learners. More will be said about this in part 3 of Chapter II. However PCD also applies to the classical model which contains elements of importance to curriculum planning: a systematic approach is very valuable in this activity as in others. Nevertheless, there are distinct philosophical differences between the two models.

Key Point 2: The ‘classical’ model of curriculum development

This model is based on ‘learning by objectives’. The curriculum aims at developing behavioural changes through setting clear learning goals and developing the knowledge and skills to achieve these objectives. The development of a new curriculum or the adaptation of an existing curriculum requires inputs and decisions which originate, generally, from a small group of experts or officials. Although teachers and trainers are, in some cases, gaining more control over what should be taught and how, the basis of the curriculum has usually been set by those in higher authority. Aims and objectives are set by subject experts, those at the top’ of the system, at senior levels in educational institutions, in the Ministries and planning departments. Students are seen to be at the bottom of the system and often have little or no part in the curriculum development process. Lawton (1989) calls this the ‘classical’ approach. Schamhart and van den Bor (1994) describe the approach to curriculum development associated with this as ‘rational’, characterised by an objectivist approach, a systematic planning procedure, an assumption of common goals for the student learners, and the provision of adequate expertise, resources and technology. The curriculum is arrived at through a process of situation and needs analysis, setting common aims and objectives, determining content and methods to be used, and establishing an evaluation procedure

Key point 3: The ‘participative’ model of curriculum development

This model adopts a more open and participative approach to learning, based on the belief that each student or participant is an individual and will therefore have equally valid but individual responses to learning situations; that there should be a mixture of ‘closed’ goals and ‘open’ goals in any educational curriculum. Many educationalists feel that the participants have an important part to play - that education should be learner-centred. This has given rise to an alternative ‘romantic’ approach, as Lawton (1989) calls it. Proponents of this approach usually consider that the students should have a considerable input into the development of the curriculum. It is now generally acknowledged that adults (and, for that matter, children) learn more effectively when they decide or have some control over what they want to learn. In other words, the curriculum should be learner-centred. Much research has been dedicated during the last twenty years or so into how learning occurs, especially with regard to the organisation of the learning matter and materials and the activities of the learners. Schamhart and van den Bor (1994) term this model ‘participative curriculum development’, characterised by a more subjectivist, interactionist approach, by the recognition of individual perception and behaviour and the variations in the social contexts of different groups of learners, by a less structured procedure, and by an appreciation that understanding and knowledge depend on a process of constantly shifting interactions among individuals and between them and their environments.

Conclusion:

When engaging in curriculum development, it is important to question ourselves about our educational ideology and our underlying beliefs about learning and the curriculum development process (see Activity Box no. 5).

Activity Box. No. 5

What sort of educational ideology do we hold?

Do all the other persons engaged in the process of developing the curriculum share the same ideologies? Do we impose our values and views on others, and do they impose theirs on us?

How far are international concerns influencing our decisions or are we taking decisions at a local level?

Is our curriculum more subject-centred or learner-centred?

Clearly the answers to these questions depend on who are involved in the curriculum development process. This topic is dealt with in the next section.

CHAPTER I: THE CURRICULUM

Part 3: CURRICULUM DEVELOPMENT: WHO IS INVOLVED?

We have seen above the necessity for continuing curriculum development to meet changing needs in society. This section examines the second of the three major influences on the process of developing or adapting a curriculum (page 8), the persons who make the decisions about the curriculum. It will examine how curricula have been made traditionally by reflecting on the persons who have tended to make decisions. This will help to provide a justification for the use of PCD approaches.

The issues to be considered at this point are:

- who the curriculum makers are;
- how a curriculum is usually developed

3.1 The curriculum makers

We noted above that an important factor influencing the kind of curriculum which will be developed is the nature of the group which makes the decisions. Educational ideologies not only help to determine the goals which the educational or training programme is intended to achieve; they also influence the way in which the curriculum is put together.

As we shall see in more detail below, no curriculum can deal with all the relevant knowledge, skills and attitudes needed to lead to the continuing development of the individual and of society as a whole. Curriculum developers must be selective. The choice of what should be included in and what should be excluded from any curriculum will depend on who is involved in the process of developing the curriculum. One group will include some subjects and activities in their curriculum, while another group will include a different range of subjects and activities. It is important, therefore, to try to determine who performs this selection. Who makes the decisions?

In the past, “classical” curriculum development has tended to involve only a small elite group of planners who sought to spread their ideological views through the process of education. More recently there has developed a different approach in which groups of student learners may also be involved.

Activity Box No 6

Who makes decisions about the curriculum in your education system or in the organisation in which you work? Who are the curriculum developers?

Do they represent all the people (stakeholders) who will be involved in the use or benefits of this curriculum'?

Who are these other stakeholders'?

How are these stakeholders identified'?

3.2 How is a curriculum usually developed?

Since the development of any new curriculum will depend on the educational and training ideology of those who create the curriculum, the decisions about who will be involved in the process of curriculum development are critical to the nature of the new curriculum. It will help us if we can examine how it has been undertaken traditionally.

At this point, we need to consider the concept of 'outsiders' and 'insiders'. In this context, we would define insiders as those within the educational and training programme concerned with the implementation of the curriculum - the institution's administrators, the teachers and the students. The outsiders are those who develop the curriculum for others to carry out - visiting experts, academics, educational administrators and planners, politicians etc. All of these have been involved in curriculum development work at different times.

Activity Box N. 7

What were the relative roles of insiders and outsiders in the development of your current curriculum?

3.3 Linear-Expert vs. Matrix-Facilitator

Two main approaches to the development of the curriculum can be identified in terms of those who are involved in the process. The first is a 'linear-expert' approach, by which the goals for the curriculum are set by experts in Ministries, planning departments and academic institutions and passed down the line to be implemented.

The students are thought to be at the bottom of the hierarchy and have no part to play in the curriculum development process.

A different approach is a 'matrix-facilitator' approach, by which the curriculum developers are facilitators for a wide range of persons including those who will implement the curriculum. Decision-making is shared, not concentrated in the hands of a few. It is an expanded version of this second model which this guide advocates in PCD.

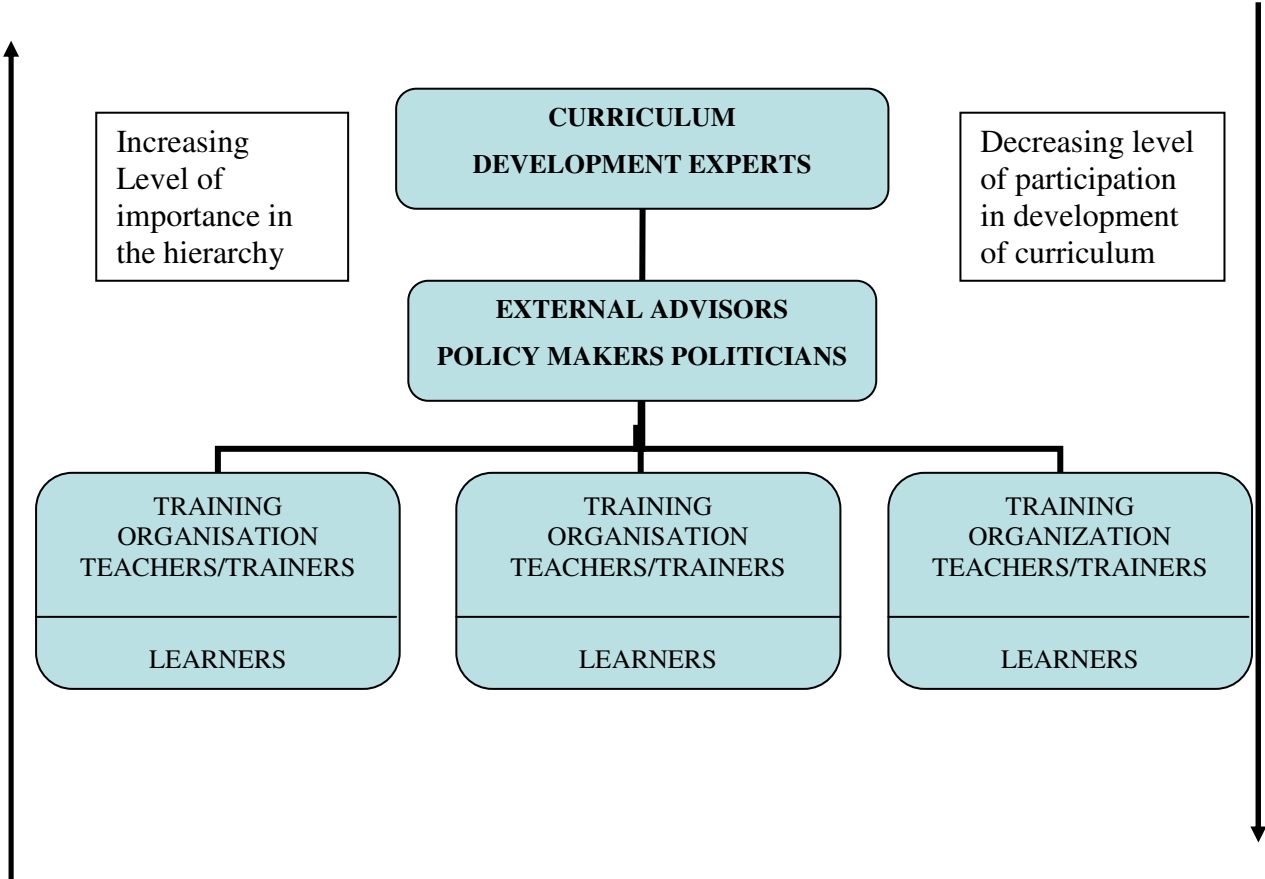
Bearing these two approaches in mind, we can identify five ways in which the curriculum development process may be approached:

1. Expert-Centred Curriculum Development

In this approach to curriculum development, which tends to be the most common, the curriculum is developed with little or no consultation by a relatively small elite group, usually made up of educational experts. They will, of course, be influenced by the setting in which they live, by their previous experiences, by the general views about education and training which are being expressed around them. They cannot avoid that. They may be advised by other interested and influential parties such as politicians, policy-makers, educational administrators, employers, finding representatives especially other educationalists. But they engage in the process on their own because they see this as a task for the experts (see Fig. 2)

On the main reasons for engaging in participatory curriculum development is to bring out into the open the assumptions upon which the expert-centred curriculum development process is built- that education is a thing apart from the rest of society, something to be decided upon a hierarchical (top down) fashion by experts.

Fig 2. Expert-Centred Curriculum Development



This approach has a clearly defined hierarchy. Those at the top make the decisions. In this approach the learners, and even to a large extent the teachers or trainers do not contribute to the development of the curriculum. Both of these groups receive the wisdom of others and carry out the tasks assigned to them.

2. Curriculum development through consultation with specialists.

Many curriculum developers are teachers or administrators who have limited experience with this kind of activity. It is not their fill-time work, so they feel the need for some assistance from others who have more and wider experience of the curriculum development processes. They gain this assistance by consulting specialists. There is, therefore, greater involvement of external advisors and members of training organisations in the development of the curriculum. It is common to bring one or two visiting experts into the process of developing a new curriculum. These experts often can contribute much as they may have been involved in

curriculum development projects in a wide range of locations and contexts. They bring extensive experience to a group which may be engaged in curriculum development for the first time, but they often lack specific local knowledge and experience. Their general theories need to be tested against more local considerations. One of the justifications of using PCD approaches is to counteract the view that outside experts are the source of all wisdom upon which the whole curriculum development process depends. Fig. 3 shows this approach to curriculum development.

3. Curriculum development through consultation with insiders.

Another common form of curriculum development which draws upon a wider group is that which brings in some outsiders and some insiders - especially the managers of the educational and training institution, and some of the teachers/trainers. A select group is brought together, usually in a workshop, and the main areas of the curriculum content are debated and selected (see Fig.4).

The choice of whom to include and whom to exclude is made almost unconsciously on the basis of the affinity of the participants. They will all tend to be educationalists, will all share much the same experience, and will all speak much the same language. Disturbing new views will be kept carefully away.

There is a greater measure of participation here but it is still limited to those within the educational system who might be thought to have direct involvement with the curriculum being developed.

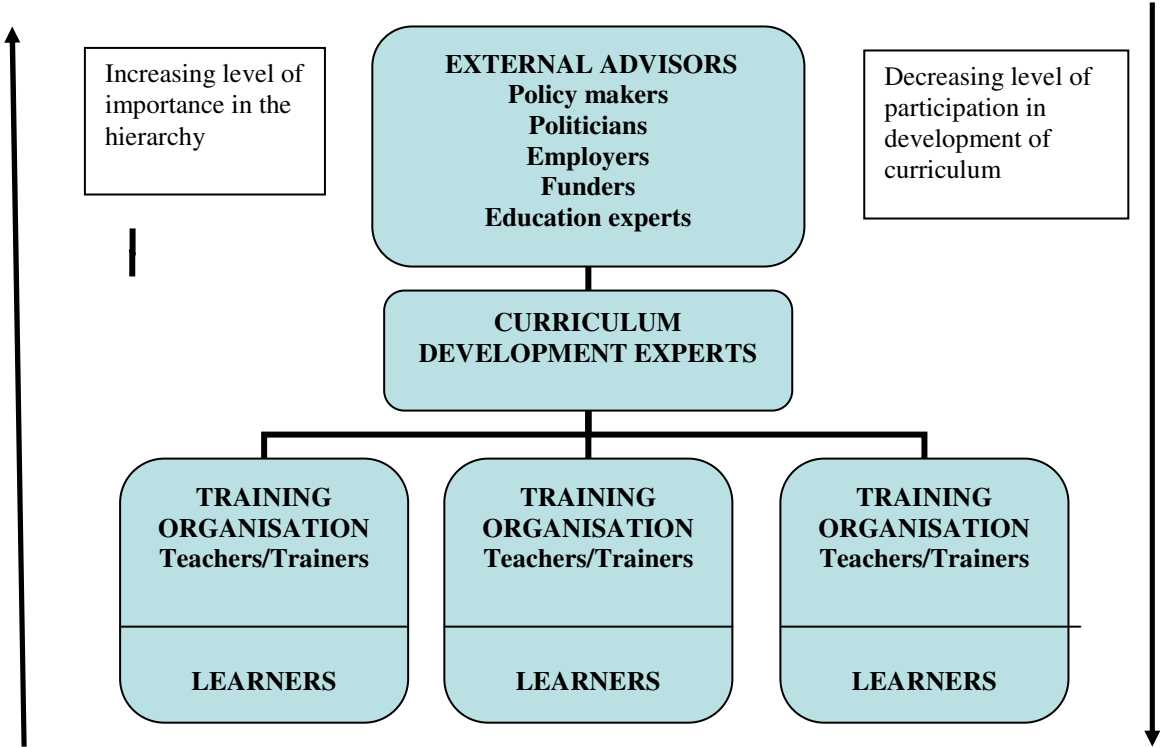
4. The negotiated curriculum.

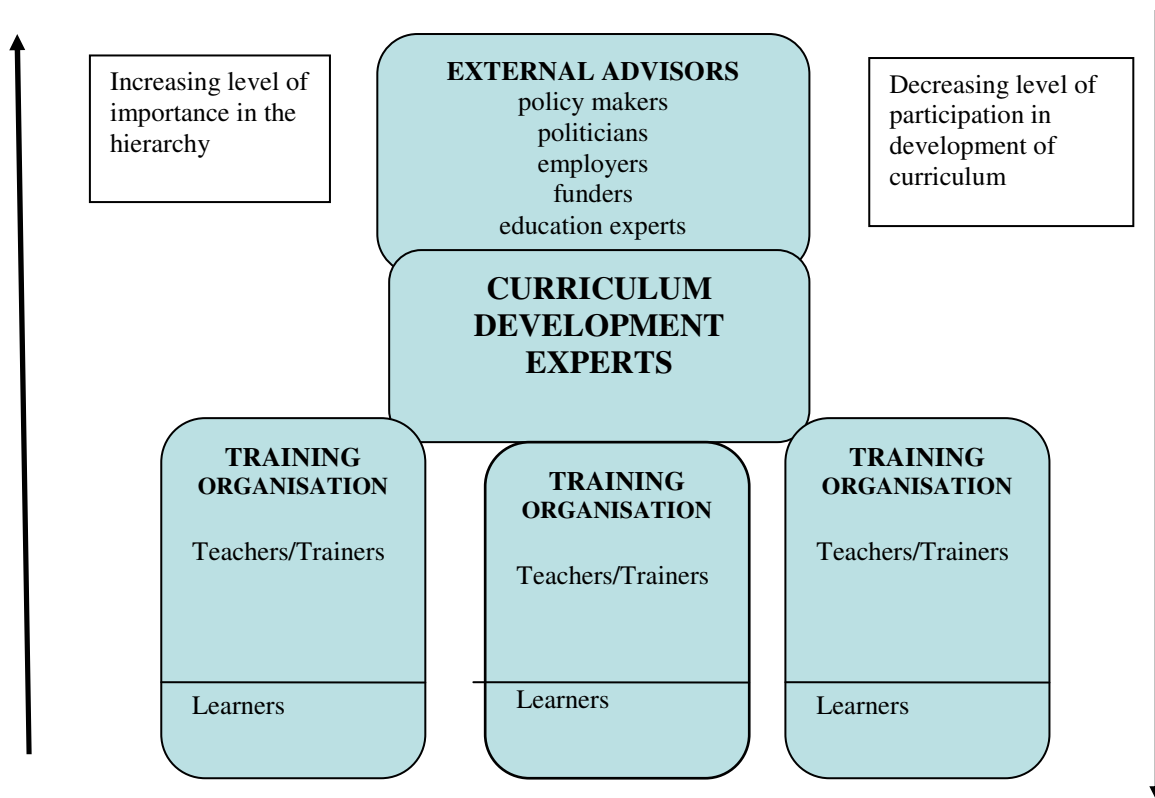
A more recent approach has begun to emphasise the concept of the “negotiated” curriculum. It is felt that a more effective way in which to encourage students to learn is to consult with them about their own learning needs, to negotiate a curriculum with them, so they will feel committed to the learning programme.

This marks a radical step away from the hierarchical approaches to curriculum development. It is no longer top-down, nor the task of one or more groups of educational experts. It is something to be shared on an equal basis between teachers and learners. The control of learning resources is shared; the time given to subjects, the activities which make up the learning programme, the ways in which the learning achievements can be tested and evaluated - all these are the subject of discussion and agreement between those who plan and teach and those who learn (see Fig. 5).

Such a process is, however, really only an option where the group of students can be contacted before the course starts. In-service training is often conducted more easily on a negotiated curriculum, because the training institution and the trainers can meet with the participants or their representatives beforehand and negotiate the programme. Where this happens, there is no doubt about the increased effectiveness of the programme.

Fig. 3 Curriculum development through consultation with specialists



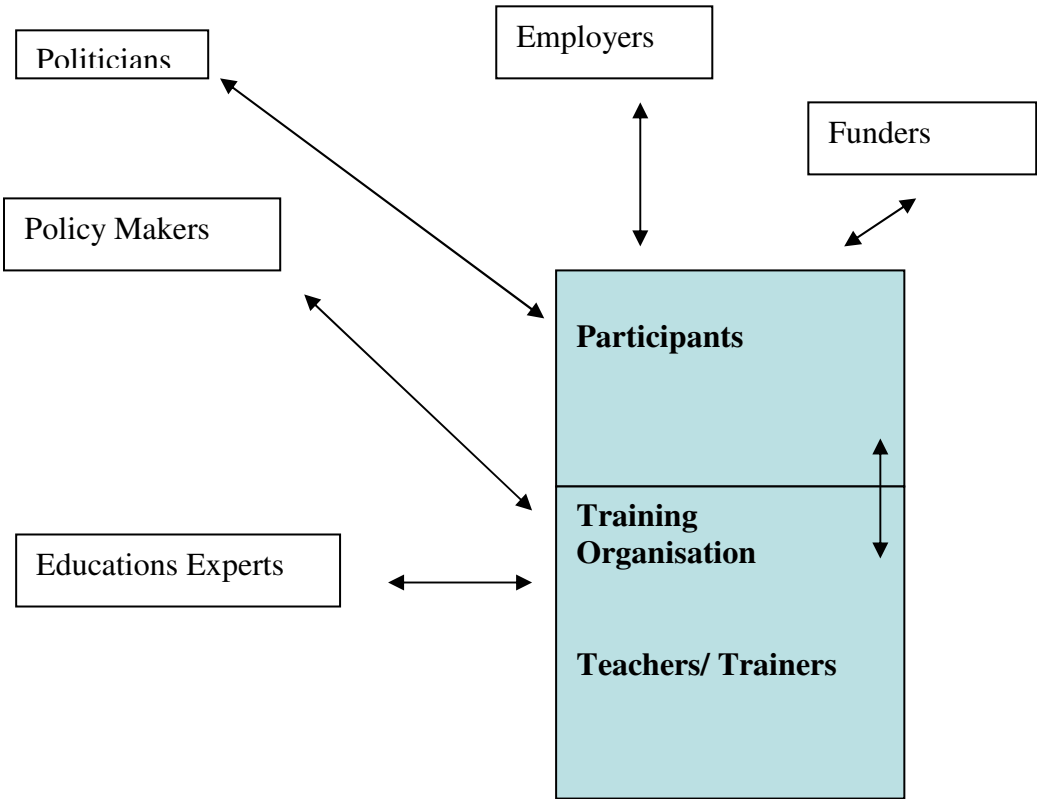


But in many other situations, especially in formal education programmes, it is difficult to meet with representatives of the student body before the course commences, and negotiated curriculum is very difficult to achieve. Some form of negotiated curriculum is possible through discussions with groups of past students, but this will not always meet the learning needs of the specific group of students entering a new course.

Fig 5 Curriculum Development through Negotiation

External Environment-Unknown Participants

INTERNAL ENVIRONMENT-KNOWN STAKEHOLDERS



5. Participatory curriculum development (PCD)

Participatory curriculum development calls for radical changes to the approaches described above. The aim is to develop a curriculum from the interchanges of experience and information between the various stakeholders in the education and training programme.

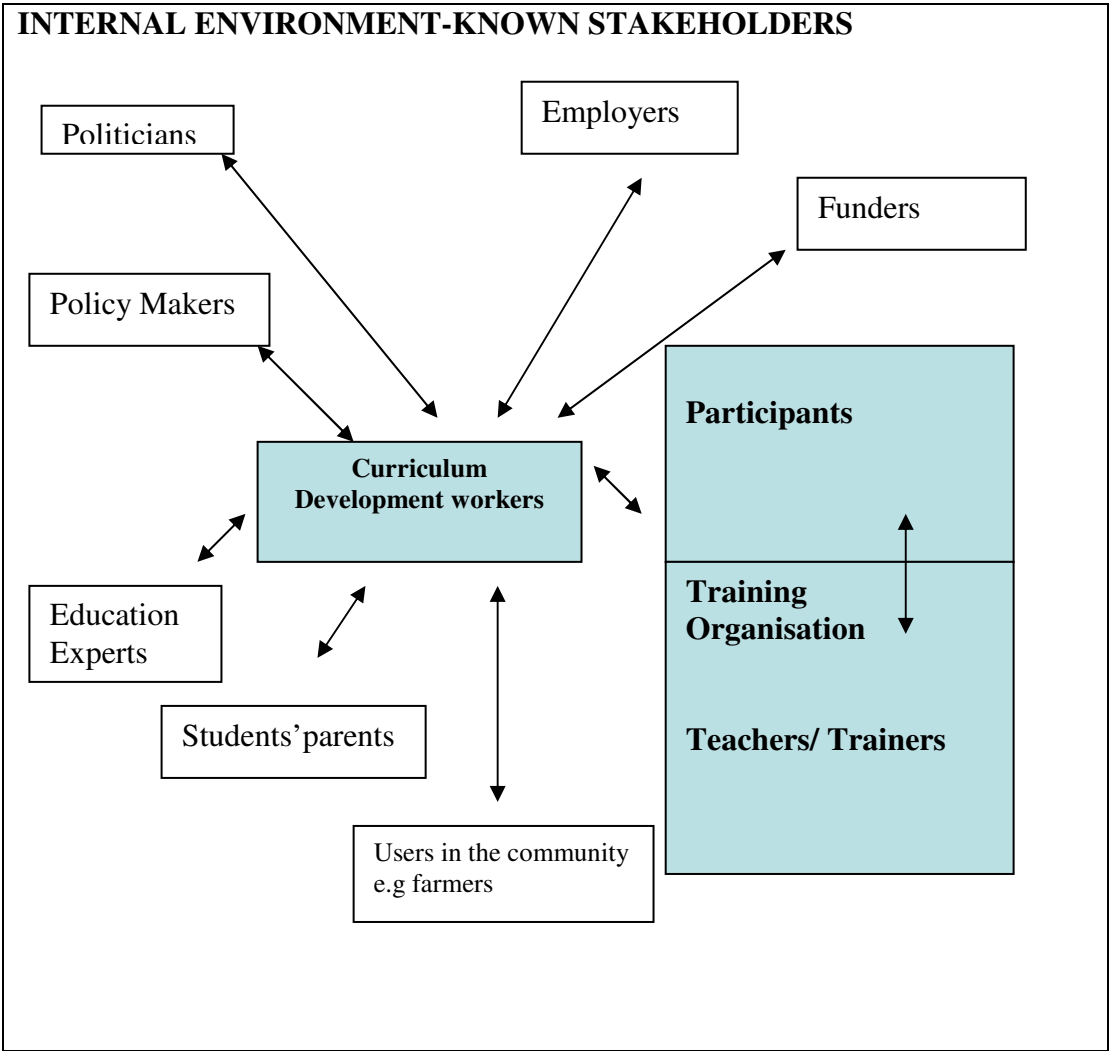
PCD seeks to identify all the stakeholders. It seeks to involve them in the construction of the curriculum - the full curriculum, including not just the subject matter being taught, but also the experiences and activities which the students engage in during the course. It seeks to explore with them, collectively or individually, their views about the desired learning objectives and the processes intended to bring about the achievement of those objectives. Rather than belonging to a small select group of experts, the process of curriculum development now involves as many of the stakeholders as possible.

Most importantly, the top-down structure has disappeared. The curriculum developers are still in the centre of the picture, but they are free to draw upon the experience and insights of all the other stakeholders, who include members of the educational institution and a wide range of groups and individuals from the internal (known) environment and the external (unknown) environment. The students, when it is possible for them to be involved in the process, are treated on an equal basis with all the other stakeholders (see Fig. 6).

3.4 Conclusion

It is the argument of this guide that all the stakeholders should be included in the curriculum development process. It is very important, therefore, to examine who is involved in the curriculum development process, since there will always be a wide range of stakeholders who have much to contribute. An effort should be made to ensure that experts do not have total control or dominate the process, creating a top- down situation.

Fig 6 The Participatory Curriculum Development Model
EXTERNAL ENVIRONMENT-UNKNOWN PARTICIPANTS



Activity Box No. 8

Who would you involve in a new curriculum development process at your institution?

Are they outsiders, or insiders, or both?

Are they all 'experts' or are there other interested groups as well?

How far are the teachers and the students involved?

The answers to the above questions will to a large extent depend on the particular context in which you are working, and the kind of course you are engaged on. These issues will be considered in the next section.

CHAPTER I: THE CURRICULUM

Part 4: EDUCATION AND TRAINING PROGRAMMES AND THE CURRICULUM

We have considered two of three factors noted above (page 8) which will influence the curriculum development process - the educational ideology of the curriculum developers and the persons who are involved in the curriculum development process. The third factor to be examined is the nature of the education or training programme which is the subject of the curriculum development work.

In this section the following issues will be discussed:

- the status of different subject areas; and
- formal, non-formal and informal education

Activity Box N. 9

What kind of education and training programme are you planning for?

4.1 The Curriculum and the Subject

So far, although we have looked at several different types of curricula and at different approaches to curriculum development, we have talked in general terms. We have not yet discussed any specific subject areas. But it is necessary to think about ‘subjects’ as part of the process of curriculum development.

a) Subject Areas

We have to talk about subjects, because the educational world today still tends to classify educational activities into subject areas. It is important to think about the implications of this for the development of curricula.

You may be involved in a specific subject area such as agriculture, environment, health or literacy. Your work will require you to concentrate on that area alone. In this case, you are likely to be developing a curriculum for that subject, or for part of that subject (e.g. agricultural economics).

Alternatively, your work may involve several different subjects at the same time. For example, you could be a trainer of village level-workers, in which case you may be involved in developing integrated training courses which bring together farming, environment, health and/or literacy.

b) The status of different subjects

It is important to recognise that the status of different subjects varies from society to society and from group to group.

The main differences between the status of different subject areas arise because of the ways in which various kinds of knowledge are valued. In countries which have developed ‘academic’ curricula, certain subject areas are judged to have ‘high’ social status, while others are viewed as ‘low’ status subjects. ‘High’ status subjects tend to

- formally assessed;
- taught to the ablest groups;
- taught in homogeneous ability groups; and
- lead to ‘high’ status jobs.

Activity Box No. 10

What subject areas in your country would be considered to have a high status?

In your answer to the question in Activity Box No. 10, you may have included studies which lead to professional qualifications such as law, medicine and engineering; but perhaps agriculture is not on your list.

Agriculture is valued very differently from society to society. In a few countries, it is given a high status, but elsewhere it is regarded as a 'low-status' subject area. In many countries, agriculture is not taught as a school subject at all. It may be found in vocational 'non-academic' schools, in third-level agricultural colleges, or as an area of knowledge and skills which should be dealt with by the extension service, or by non-formal education departments.

Another factor which will influence the curriculum which you prepare is the way in which a subject is approached. For example, agriculture can be taught as an objective scientific subject, impartial, remote, neutral and detached from its local surroundings. Most agricultural textbooks are written like this. It can however also be taught as part of a wider area of social development, where the human elements are included and where value judgements are made. Clearly both of these approaches call for different curricula.

Activity Box No. 11

What is the status of agriculture as a subject area in your country? How is it treated in your context: as a scientific subject or as part of a larger component, such as rural development?

4.2 Formal, Non-formal and Informal Education

We have introduced here the idea that there is more than one kind of education. In fact, there are several different systems. In many countries, there is a clear divide between what is known as the formal education system and what is called non-formal education. Let us examine these two situations, using agriculture as an example.

a) Formal agricultural education

Formal education systems usually include those parts of the education system which are institution-based. Normally, these institutions embrace schools (primary and secondary), colleges, polytechnics and universities. There may be other types of institutions which do not easily fit into this list. The following characteristics may be attributed to formal education programmes (Rogers 1992).

They tend to be

- impersonal;
- youth-oriented;
- preparatory, for later application;
- with a fixed compartmentalised content;
- with selective entry;
- institutionalised and sectorised;
- terminal (usually examination-oriented); and
- self-assessing.

Curriculum development in formal education systems is often highly organised, with certain people or groups having total responsibility for the development of the curriculum.

Some examples of the way in which a formal education system may operate are illustrated below in Key Points 4 and 5.

Key Point 4: Curriculum development from below

In country “A”, an agricultural college is under the control of the Ministry of Agriculture. The Ministry is divided into Departments or Directorates which are responsible for different activities. One of these activities is agricultural education and training.

Within this Department or Directorate, there are personnel responsible for the education and training that goes on in the agricultural college. They will have an influence on the development of the curriculum, either directly or in an advisory capacity, by sitting on the Advisory Board of the college.

Within the agricultural college, the Principal who is answerable to the Ministry may play an influential role in curriculum development. Or the College may have a person in charge of academic affairs; there may even be someone directly responsible for the co-ordination of curriculum development activities. This ‘co-ordinator’ is likely to liaise with other teaching staff in the college. Heads of Department and lecturers may thus play an important role in the curriculum development process

Members of the public such as employers, parents, etc. may contribute ideas, which are used to assist in the development of the curriculum.

Not all formal education systems will operate exactly as outlined in these two examples, but you may be able to recognise elements of these in your own situation.

You may be wondering “What is the role of the students in the development of these curricula?” Sometimes the students play a part, but very often the curriculum is developed without involving them at all. This situation is very common in formal education.

We described above some of the characteristics of formal education. The following characteristics may be attributed to non-formal education (Rogers 1992).

Key Point 5: Curriculum development from above

In country “B”, agriculture is taught in many secondary schools. The public secondary schools fall under the control of the Ministry of Education. Within this Ministry, there are curriculum development teams who develop the curricula for different subject areas such as mathematics, science, history and art. Agriculture is one such subject area.

Once the curriculum for agriculture has been developed centrally, it is sent out to all secondary schools in the country. All agricultural teachers are then expected to teach this curriculum to their students. The curriculum may take the form of a syllabus, i.e. a list of topics to be covered.

The teacher will then have to use his or her initiative, knowledge and skills to develop a programme of teaching based on this list. Alternatively, the curriculum may be more detailed, providing clear guidelines about objectives, activities, re and assessment procedures.

Non-formal education and training may be provided by a very wide range of organisations, for a wide range of people, and in a wide range of locations and formats. This makes it difficult to generalise about non-formal education.

Activity Box No. 12

Describe how the examples above compare with the situation in your own country? What structures exist in your country?

You may be wondering “What is the role of the students in the developments of these curricula?” Sometimes the students play a part, but very often the curriculum is developed without involving them at all. This situation is very common in formal education.

Activity Box No. 13

What has been your involvement in the development of curricula which you have used or implemented?

Do you think the students should be involved in the development of the curriculum used in formal education programmes?

What do you think are the arguments for and against this?

b) Non-formal agricultural education

We described above some of the characteristics of formal education. The following characteristics may be attributed to non-formal education (Rogers 1992)

It tends to be:

- personal;
- oriented to all age groups, especially adults;
- for immediate application;
- with changing and integrated content;
- with open entry;
- located anywhere, non-sectorised;
- continuing, not terminal; and
- validated by change.

Non-formal education and training may be provided by a very wide range of organisations, for a wide range of people, and in a wide range of locations and formats. This makes it difficult to generalise about non-formal education.

Putting education into categories can cause confusion, partly because there is often an overlap between them. We cannot always draw clear-cut boundaries. Some activities can involve elements of both formal and non-formal education, for example **extension**. Many extension programmes involve an education and training element. It may be the intention of an agricultural extension service to communicate a whole series of messages to people. Some of these may be dealt with formally, in institutionalised training centres, and some non-formally in a range of different settings.

Activity Box No. 14

Would you say that the following examples of education are formal or non-formal?

- Farmers attending a Farmers' Training Day which is provided by a college of agriculture at the college premises?

Formal/Non-formal / Other?

- A school agriculture teacher attending a local public meeting in the village about the introduction of new seed varieties?

Formal / Non-formal / Other?

- You, reading this manual?

Formal / Non-formal / Other?

c) Informal Learning

Another type of learning may be distinguished - informal learning.

People may pick up messages that are not provided explicitly, for example - by listening to a group of farmers talking about a new vaccine for cattle. This last case can be described as informal learning.

Normally there is no curriculum for informal learning, since by its nature it does not occur in a planned way but rather as a by-product of other activities. For non-formal education programmes, however, there must be a curriculum of some kind, because decisions need to be made about the content of the training, the resources required, even the location where and the time when it will be held.

Since there is a huge variety of non-formal education and training programmes for a very wide range of target groups, it follows that there will be very many different curricula involved.

Activity Box No. 15

- What other forms of informal learning can you think of?

Conclusion

In this chapter, the nature of a curriculum has been discussed - what it is, where it comes from, who has control over what goes into it. We have seen, that the type of curriculum developed will depend on the type of educational system in which it is going to be used.

One very important term used during this chapter is learning. The function of all education and training programmes is to facilitate learning. The curriculum serves to create a structure within which learning can take place. But what do we really mean by learning? This is the subject of the next chapter.

Activity Box No. 16

What is your experience of non-formal education and training programmes?

What kind of curriculum was used in these programmes?

How would you categorise the programme you are now engaged on Formal, non- formal or extension. Why'?

CHAPTER 1 - Further reading:

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CHAPTER II: LEARNING AND THE CURRICULUM

PART 1: THE NATURE OF LEARNING

PART 2: THE LEARNING PROCESS

CHAPTER II: LEARNING AND THE CURRICULUM

PART 1: THE NATURE OF LEARNING

The main purpose of education (whether it is formal or non-formal, in agriculture or any other subject area) is not to teach that subject but to help the students to learn that subject. There is no point in teaching if the students are not learning.

This means that the main purpose of developing any curriculum is to build a range of activities, of experiences, for the students in order to help them to learn. It is necessary therefore, to understand what this involves if a curriculum is to be created which promotes learning.

In this chapter, the following topics are discussed.

- the nature of learning;
- the domains of learning;
- how learning comes about; and
- the relationship between learning and the curriculum.

1.1 The nature of learning

The question to be considered at this stage is- what is meant by learning?

Activity Box N. 17

Define for yourself the meaning of learning?

Learning is something we all do all the time. We do it naturally, without any help. It is part of the way in which we all cope with change. It was noted above that one can learn informally (see activity boxes 14 and 15 above). Much of our learning is unintentional, what is called incidental learning.' But a good deal of it is purposeful we often plan our own learning. And this means that we can develop strategies which will help us to learn more effectively and more permanently.

Activity Box N.18

Think of some piece of learning (outside of any school or college programme) which you have felt you needed to do recently. It may have come from some situation at work; but equally it may come from your home circumstances or your leisure interests or your social setting. If you note it down and refer to it as you read this chapter, you will find this helpful in relating the material of this section to your own circumstances.

Need-based learning: Most intentional learning arises from our sense of need - we feel the need to learn and we set out to meet that need.

Learning is something that takes place within the learner and is personal to him; it is an essential part of his development, for it is always the whole person who is learning. Learning takes place when an individual feels a need, puts forth an effort to meet that need, and experiences satisfaction with the result of his effort. (Leagan, 1970 pages 33-34)

Learning is part of our on-going self-development, part of our growth into increasing maturity, part of the natural pattern of changes throughout our lives. It comes from an immediate and concrete need, for example, the demands of marriage or the birth of a child. Learning fits into our way of life and arises from it; it is not something exceptional like schooling.

Activity Box No. 18a

Can you identify what was the need or interest which made you engage in the learning activity which you identified above (page 37), and how it fitted into your ongoing self-development?

Learning and behaviour: Learning is always an internal matter which people do for themselves. But internal learning changes almost always reveal themselves externally in some form of changed behaviour. The end purpose of most intentional learning is to change one's way of dealing with situations, to do things better. Some learning will of course arise from a sense of interest, and this may not always result in behavioural changes, although even here there are likely to be ways in which the fact that such learning has taken place will be revealed.

Activity Box No 18b

What behavioural change (if any) did you wish to bring about as a result of your learning activity? (Activity Box 18)?

Learning then is a process of bringing about changes in one's own self. Such learning changes should be more or less permanent; very temporary changes will not really constitute learning.

1.2 Domains of Learning

This section will consider the following issues:

- What kinds of learning changes are made
- How these changes are related to each other.

Five main areas of learning changes have been identified; they are sometimes called 'domains' of learning, something, but we cannot be sure until we have tested it out in experience.

KNOWLEDGE: For most people, learning means adding to or making changes in their own knowledge. But learning is more than just knowledge. It covers other domains as well. Nevertheless, new or changed knowledge forms part of learning.

Activity Box N. 18c

Can you list the areas of new knowledge you felt you needed in order to achieve the learning you undertook (Activity Box 18 above)

The field of 'knowledge' is a very difficult one. There are several different ways of knowing. Knowing people is a different thing from knowing objects or truths, and these again are different from knowing oneself. Academic knowledge (book knowledge) is often different from practical or experiential knowledge.

An example will illustrate this point. One can know a diamond as a work of art (something beautiful); as a tool (to cut glass); as a valuable object (an investment); as a carbon crystal (a scientific object); as an ornament (a piece of jewellery). All of these different forms of

knowing are true. Each is equally valid; no one is more important or higher than any other. Which one you know depends on your experience of a diamond, whether you possess one, how you got it, whether you have ever used one, etc. To know a diamond fully would require some knowledge of all of these aspects.

Knowledge and theory: Not all knowledge is held with the same sense of certainty. Some knowledge is tentative knowledge, to be tested further. The distinguishing line between what is theory and what is knowledge is very thin. We may think we know something, but we cannot be sure until we have tested it out in experience. Even strongly held knowledge turns out to be a belief when it runs against contrary experience. Knowledge which has been tested repeatedly against experience will be held firmly.

Experiential knowledge: This means that experience is a vital part of knowing. Practical experiential knowledge is different from head knowledge or book knowledge. Some people think that one has only effectively learned something when one has practiced or used the knowledge, not when one can only recite the knowledge. In agriculture, practical knowledge and theoretical knowledge need to go hand in hand to build a full picture of what needs to be learned.

Knowledge and status: Just as there is a hierarchy of status attached to subjects (see above pages 25-26), so there is a hierarchy given to different forms of knowledge. Pure science is often regarded as a higher form of knowledge than applied science, which in turn is thought to be higher than practical or technical knowledge. To take an example, a scientist will know 'mud' as a colloidal solution and analyse its elements in a laboratory; a brickmaker or potter will assess mud in the field to see what kind of product can be made from it; while children know mud as a material which can be used to dam small flows or water. All these are valid forms of knowledge for different purposes; but the knowledge of the scientist is usually regarded as more valuable, more worthwhile, than that of the potter or brickmaker, while the children's knowledge is disregarded altogether as a trivial form of knowledge.

Such considerations will affect the way the curriculum is developed. If greater stress is placed on book knowledge than on field knowledge, the curriculum will concentrate on text-centred student activities and will develop tests, which assess book knowledge more than practical or experiential knowledge.

Activity Box N. 18d

Thinking back to your recent learning (Activity Box 18 page 37), what kind of knowledge did you seek to learn? Was it mainly book knowledge or practical knowledge or some other kind of knowledge?

(It is not possible to go into this area of discussion in more detail here, but if you are keen to follow this up, we have provided some references at the end of this chapter.)

UNDERSTANDING: It is possible to know something (a fact) without understanding why it should be true or what are wider than knowledge. It seeks to come to relationships between different elements of implications of individual items of knowledge.

Understanding needs to be learned; it is a separate domain of learning. It does not always come automatically with learning new knowledge, but it often goes along with knowledge. There is much truth in the view that training consists of the acquisition of knowledge without understanding and that it leads to activities being performed mechanically, not to true thinking and creative activities.

SKILLS: We all need to learn new skills, to develop new abilities in order to undertake various tasks.

Skills are sometimes referred to as ‘knowing how to do something’. But knowing how to do something and being able to do it are not the same thing. One may know how to mend a machine in theory but not be able to mend it in practice. The skill is being able to mend it, not knowing how to mend it.

Skills have often been classified into two main groups:

1. those which are physical (motor skills), things which we do with our hands or feet, etc; and
2. mental (or psychological) skills.

But this is too simple a classification. There are for example skills which thaw upon a wide range of senses: skills of listening, for example; or skills of detecting and facilitating interpersonal relationships. And there are activities which bring together a range of both motor and psychological skills - playing a musical instrument, for example.

Activity Box No 18f

In your chosen learning activity, can you identify the skills which you sought to learn. Were they motor skills, psychological skills or other kinds of skills?

One major difference between the learning required to develop knowledge and the learning required to develop skills is that skills call for practice. Practice is a process of 'developing repetition', by which the learner makes progress through doing something over and over again, while making adjustments all the time. The need for such practice is often omitted from many curricula, partly because of pressure of time, but probably more often because progress through practice depends upon the students making and learning from mistakes. Most educators and trainers do not like to think of their students making mistakes!

Skills then are learned and developed through a process of trying to do something, not being able to do it properly or up to the required standard, and trying again and again until it can be performed to the satisfaction of both the teacher and the learner.

ATTITUDES: Many people think that learning only concerns the intellect, not the feelings. But true learning which will lead to behavioural changes cannot exist without some involvement of feelings. If you think back to your school days, you may remember that you learned best from those teachers you admired and respected or perhaps feared. Your feelings affected the way in which you learned.

Attitudinal learning is a separate domain of learning. The learning of new knowledge will not of itself always lead to the formation and development of attitudes, although the development of new knowledge and new skills can in some cases lead to a willingness to entertain new attitudes. Attitudinal learning needs to be encouraged through the curriculum.

People are learning new attitudes all the time. But teaching for attitudinal learning is much more difficult. As experienced trainers know,

Changing attitudes is much slower, less direct and less certain than changing knowledge and skills. But it is possible. (Abbatt and McMahon 1993 page146)

Perhaps this is why attitudinal learning is often neglected in many forms of education and training:

In discussing agricultural extension, emphasis is often placed almost entirely on the knowledge and skill needs of the farmers and how these can be met most effectively, with little consideration of the importance of the kinds of attitude change which might be conducive to rural development. (Coombs and Alimed, 1974)

Attitudinal learning is vital if behavioural learning changes are to be achieved.

There are many examples which illustrate this. It is not lack of knowledge or understanding, and certainly not lack of skills, which stops many people from giving up smoking. They know that smoking is killing them and other people. They understand why this is so. They have the skills to stop smoking. What they have not developed are the attitudes which will bring about the desired change - the motivation which says 'I want to' and/or the confidence which says 'I can.' Similarly with family planning, it is often not more new knowledge or new skill learning which is required to enable people to adopt appropriate family planning strategies. It is attitudinal learning which is needed.

Activity Box No. 18g

Do you think you developed any new attitudes during the learning which you undertook (see Activity Box 18 above)? If so, what were these?

1.3 Implementing Learning

Some people assert that there is a fifth domain of learning, **behavioural learning**. Others would argue that behavioural learning, those changes in our patterns of doing things which are the objective of so much education and training, is in fact the sum result of all the other forms of learning. It is the external way in which we make manifest the internal learning changes which no one else but ourselves can know we have made. No one can see our changed knowledge unless we reveal it in what we say or do. No one can see our skills unless we do or make something. No one can see our changed understanding unless we reveal it in what we write or say or in how we behave. No one can really tell our changed attitudes unless we reveal these in what we do.

Activity Box No. 18h

Can you identify ways in which your behaviour changed during and after the learning activity which you undertook for yourself (Activity Box 18 above).

Learning and behavioural changes: Just as a distinction can be drawn between knowing how to do something and being able to do it, so too we need to draw a clear distinction between being able to do something and actually doing it. Many courses state their objectives in the form of: ‘at the end of this course, the students will be able to do...’ something or other. But being able to do something will not ensure that the students will in fact do it. Graduates from an agricultural college may be taught to plough or vaccinate cattle effectively by the end of their training programme but on inspection sometime later, it may be found that they are not in fact implementing these practices. We shall look at some of the barriers to effective learning later (pages 56/57), but here it is important to note that some institutions would regard this as an indication of the failure of the course to develop effective agriculturists. Others, however, would argue that, since the final choice must be left to the students, this could still be regarded as a successful course. You will need to determine your own views on this.

What is clear is that changes are needed in all four domains of learning if effective behavioural changes are to take place. Training without understanding may lead to the mechanical performance of tasks, but true developmental learning will require at the very least changed knowledge, skills and attitudes.

Key Point 6 Thinking about learning and behavioural change

For a farmer to learn to practice the transplantation of rice seedlings in straight lines, he/she needs to know that it is best for growth if the rice seedlings are planted out in this way.

But without understanding the reason for this procedure, the farmer will only be doing this mechanically, not thoughtfully. In this case, the learning is unlikely to be permanent. The farmer needs to understand why rice grows better in straight lines than irregularly throughout the plot. Understanding is a separate domain of learning, equally necessary but needing a learning stage or process.

The farmer also needs to learn how to plant in straight lines, including the identification and use of appropriate tools, and to develop the skills of using these tools. This will require practice.

But if the farmer is really to carry out this procedure, he/she will need to develop positive attitudes towards the activity - especially motivation ('I want to do it') and confidence ('I can do it'), as well as other attitudes such as openness to new ideas, willingness to experiment, curiosity and commitment to the activity etc.

Only when all of these learning changes have been made will the farmer actually carry out the practice, and the learning process lead to new behavioural patterns. Only then will the educational and training programme be fully effective.

Activity Box No. 19

It would seem clear that no student-learner can really be said to have learned something if he/she does not carry it out in practice. Consider for example, the following questions:

- Can literacy students really be said to have learned literacy if they do not in practice read or write outside of the classroom?
- Can farmers be said to have learned the latest methods of growing crops if they do not carry out on their farms the practices being taught to them?
- Can college graduates be said to have learned a particular area of subject matter if they do not use their new knowledge or skills in their occupation?

CHAPTER II: LEARNING AND THE CURRICULUM

Part 2: THE LEARNING PROCESS

If learning is the purpose of all education and training, the goal of the curriculum, it is important to know how learning comes about. An understanding of the learning process will enable teachers to encourage their students to learn more effectively education and training programmes.

In this chapter the following topics will be examined:

- the processes of learning;
- learning and the curriculum;
- measures of achievement; and
- barriers to learning.

2.1 The processes of learning

The question you should ask yourself at this stage is, “how does learning take place”?

Activity Box No. 20

How do you learn? Write down some of the ways you learn.

a) General Considerations

Learning is active: The first thing to say about learning is that it is an active process. It is now generally accepted that learning is not the passive receiving of other people's knowledge. It is the active search for the solution to some problem or for the satisfaction of some need. Out of all the new experiences which surround us every day, we 'learn' that which we need or which interests us, that which is relevant to our situation. We ignore all the rest.

This means that it is the learner who learns. He/she is the only one who can learn. A teacher cannot 'learn' the learner; a teacher can only help the learner to learn. Only the learner can make the learning changes for him/herself. Nor can anyone ever force a learner to learn - except by conditioning. All real learning is voluntary and active.

Memorising: This raises the question of learning and memorising (what is often called 'learning by heart'). Memorising is one of those learning skills or strategies which are mentioned above; it is one way of changing knowledge. But the memory will only be usable if and when the learners are willing, i.e. if they are motivated, to learn in this way. Some people will naturally have a much better memory process than other; they find sorting, storing and recalling information relatively easy. Others will be less able to do this easily. Existing education and training systems tend to reward those who have a good memory and to train this memory to become even better; those who, through no fault of their own, possess a less potent set of memory skills are penalised.

Learning differences: This highlights the fact that learning is a very diverse activity. We all have different learning abilities. Nor do we all learn in the same way. Training and educational systems are usually built on the assumption that we all learn in just one way and all at the same time. That is not true. We are all different in the ways in which we learn, whether it be knowledge, skills or attitudes, just as we are all different in other ways (see below, pages 50 & 52).

b) Strategies of learning

There are many ways in which we learn.

Knowledge: This is acquired mostly from others, either personally or through writings or visual images. Much new knowledge is also developed from trial and error or from reflecting experiences. Equally, experience can challenge and change existing knowledge.

There is an almost universal consensus now that, although knowledge can be acquired from another person, it cannot simply be transferred from one person to another.

Learning is not finding out what other people already know but solving our own problems for our own purposes by questioning, thinking and testing until the solution is part of our life.

(Charles Handy, cited in Ball 1991)

Development is not possible with somebody else's thinking and knowledge... Knowledge cannot be transferred - it can be memorised for mechanical application, but learning is always an act of self-search and discovery. In this search and discovery, one may be stimulated and assisted but cannot be taught.

(Md Anisur Rahman 1993)

These statements appear to contradict common sense, for we seem to see the transfer of knowledge from one person to another every day. But it is now more and more clearly

understood in many different disciplines that knowledge is ‘created’ by the learner rather than simply accepted from a teacher or other source.

The implication of this is that ‘telling’ the student is a much less effective way of promoting learning, even in the area of knowledge, than encouraging the students to ‘work it out for themselves’. To learn new knowledge, students need to search it out and find it for themselves and use it to solve their own problems.

Activity Box No 21

In the exercise which you did above about new learning (page 37), how did you gain your new knowledge. Did you seek it out or did someone pass it on to you unasked?

Understanding: This is most frequently developed through the use of knowledge and through reflecting critically on experience. A large part of any curriculum which aims at developing understanding and new insights will involve the creation of opportunities for action, experiences to help learning, and for reflecting critically on those experiences.

Arriving at, or learning, new understandings normally require giving much thought to something. It is not easy or a quick process like learning knowledge. The examination of the relationships between different elements, the establishment of causes and results, the creation of meaningful patterns, the grasping of insights (which sometimes come in a flash as various elements ‘fall into place’)-all these require time and freedom from distraction. Much of this learning of understanding will come from what has been called the ‘search for meaning’, the desire for which (as many writers assert) lies deep within most people.

Skills: Similarly skills are developed, not through demonstrations but through doing the activity for ourselves. The way to learn to swim is not by listening to a lecture about swimming or watching someone else swim but by swimming. The same is true for all skills, whether mental or motor.

This is particularly true of the skills of learning. The development of learning skills, like all skills, need practice. And since we all learn in different ways, the more the teacher-trainer uses only a few teaching-learning strategies and ignores others, the stronger will become,

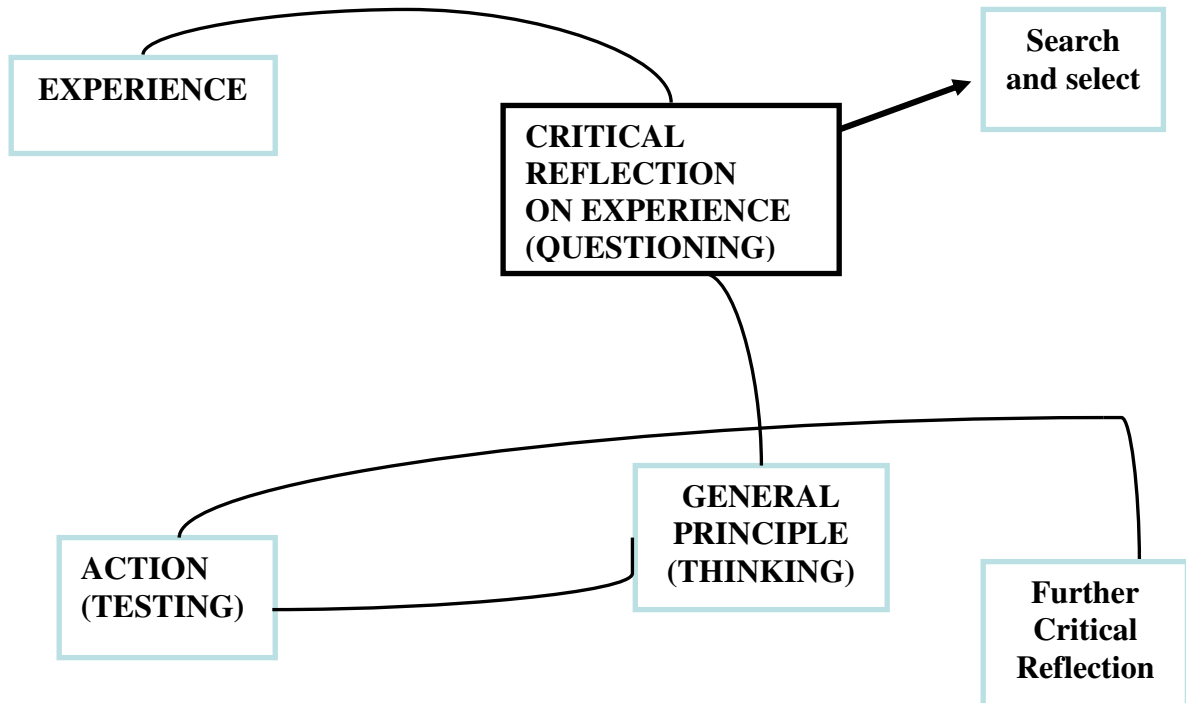
those strategies used most frequently and the weaker those other strategies which are neglected.

Attitudinal development: This is, as we have seen, more difficult to encourage. The way we learn attitudes is very uncertain. They come from our experiences, and especially from interaction with other people, particularly people we see as our peers (this is in fact an attitude in itself). We all have reference individuals and groups from whom we take our views and choices; and the things which happen to us or the things which we achieve for our selves will also affect our attitudes. The ways in which this influences interact among themselves and with our sense of self identity are clearly very individual and probably uncertain. Much more research needs to be done on how attitudes are developed and changed.

c) ‘Critical reflection on experience plus action’

Experience is central to all learning. Many writers on learning have stressed the significance of what is called ‘critical reflection on experience’ as a tool of learning. Through a process of examining their experience in the light of other relevant factors, coming to conclusions about that experience and determining to act in a different way, people change their knowledge, skills and attitudes. Critical reflection on existing farming practices in the light of new knowledge or the different experience of other farmers which comes by a process of searching and selecting, combined with action based on that reflection, will lead to learning. The new action then becomes the new experience which in itself is subject to further critical reflection in a continuing ‘learning cycle’ (see Fig. 7).

Fig. 7 The learning cycle



Learning styles: Several recent studies have been conducted into learning based on the learning cycle. One of the major conclusions is that different people have different preferred learning styles. David Kolb (1976) has suggested that some people are what he calls ‘activists’: they tend to learn quickly and most easily from lots of new experiences. Others are called ‘reflectors’: they tend to learn most easily by taking things slowly, by thinking and studying before they act. Others are so-called ‘theorists’: they like to make systems, to analyse situations systematically, to draw out general principles. While yet others are ‘experimenters’ (Kolb calls these pragmatists), exploring new ways, devising new methods of doing things, trying out new approaches, learning by trial and error (see Key Point 7, page 52).

All of us use more than one of these learning modes, and some of us use all of them to some degree. But each individual learns most effectively in one of these modes rather than in all four. We feel most comfortable when we deal with learning experiences in our own particular learning style.

Whatever we may think about such views of learning, the one thing which stands out from all the studies is that, although experience lies at the root of all learning, people learn in different ways from that experience. They do not always learn in the same way. And that will have profound implications for curriculum design.

2.2 Learning and the Curriculum

The question we need to ask at this stage is: How can the curriculum be used to promote learning?

The discussions in this guide have arrived at a number of conclusions about learning which will affect the curriculum development process. Learning is an active, not a passive process: the curriculum will therefore need to consist of activities which the students will do rather than a set of topics which the teacher will teach. Experience is the core element in learning: the curriculum will therefore need to concentrate on what kind of experiences the students are having. The students will have different preferred styles of learning, therefore the curriculum should not treat all the students in the same way if all of them are to be helped in the most effective manner.

A crucial factor in the teaching/learning process is providing an effective learning experience. This is the criterion by which all teaching and learning must ultimately be judged. An effective learning experience is one that results in a maximum of desirable change in behaviour on the part of the learner. Effective experiences involve more than simply placing oneself in a position to learn. (Leagan 1971)

Key Point 7: Preferred Learning Styles

We all have certain preferences in the way we learn.

ACTIVIST LEARNERS

Some of us prefer to learn by doing something immediately. We don't bother to wait to listen to all the instructions, to read the manual first but we get on with the job; we try to find out how it works. These people get impatient when someone tells them all about the task first. When they are asked a question, they give an immediate answer without waiting to work it all out fully. They tend to be enthusiastic about new things; they like lots of new experiences ("I'll try anything once"). When they have finished one activity, they want to pass quickly to the next one. They want to see as many new things as possible; they like to meet lots of new people. They will often volunteer to take the lead in any activity. They like short-term goals and are usually bored by the slower work of implementing and consolidating a programme. They tend to believe what they are told. These people want to find out things for themselves.

REFLECTIVE LEARNERS

Some of us prefer to 'wait and see'. We sit back and watch others doing the task first, we listen to the talk of others. These people don't give the first answer that comes into their heads; when they are asked a question, they take time to think, they hesitate and are often uncertain. They want more information before they can give a real answer ("I want to sleep on it"). Before making a decision. They try to think through all the implications, both for themselves and for others. These people tend to like sharing their learning with others because this helps them to collect different opinions before they make up their minds.

THEORISING LEARNERS

Some of us like to build systems, to get down to first principles. We don't want to deal with 'real cases' - they are thought to be too limited; rather we want to understand the whole, general principles first ("What does it really mean? How does this fit with that?"). They speak in general rather than in concrete terms. They question the basic assumptions. They make rules out of all cases. They usually think problems, through step by step. They try to make coherent pictures out of complex material (they often represent ideas in diagrams showing relationships). They try to be objective, detached; they are less sympathetic to human feelings, to other people's subjective judgements. These people want the world to be logical; they do not like too many different opinions.

EXPERIMENTAL LEARNERS

Some of us like to experiment, to apply our new insights. We come back from training courses full of enthusiasm and full of new ideas which we want to try out. Having been told something, these people do not believe it until they see it for themselves ("It may work for you but I want to see if it will work for me"). They try to find new and more effective ways of doing things. They take short cuts or devise new modes of working. They tend to be confident, energetic, impatient of situations as a challenge from which they can learn a good deal. They like being shown how to do something but become frustrated if they are not allowed to do it for themselves very quickly.

Adapted from the works of David Kolb

Activity Box No 22

Read the descriptions in Key Point 7 and then write down here the way or ways you feel you learn most frequently.

a) Start where they are

The important thing with any curriculum is, as far as possible, to start where the students are, with the experience they already have and the styles of learning they prefer to use.

We must begin where people are, with what they have, and help them to help themselves. (Gross, 1986)

This view is just as true of education and training courses as it is of extension and development programmes.

b) Setting learning objectives

We have also seen that learning can take place in several different domains. It is therefore important that the educator and trainer should set out clearly the learning objectives to be achieved in the curriculum. Which domains do they lie in, knowledge, skills, understanding and/or attitudes?

Most curriculum developers set their goals in the form of 'learning about a particular topic' (for example livestock, crops, pests or fertilisers etc.) - that is, acquiring a set body of new knowledge and/or a set of new skills. But it is important to ask, why should the students learn about livestock or about the other topics? What is the purpose of this education and training programme?

If the main aim is to help students to pass an examination, then the students will also need to develop the necessary skills of writing examination answers and the attitudes (especially confidence) which will lead to the successful completion of an examination. If the aim is to help students to get a job, then they will need to be encouraged not only to acquire some of the knowledge which will be looked for by the future employer, but also to develop the necessary skills and attitudes to make a successful job application and perhaps pass an

interview. If, however, the purpose of the education and training programme is to help the students to perform on the job more successfully, then the teacher or trainer needs to identify the factors which make for a successful worker and build them into the curriculum.

c) KSA approaches to the curriculum

The argument of this section is that, since learning is not just the acquisition of new knowledge or the development of new skills but involves the whole person, especially the attitudes of the students, the curriculum will need to provide not just for the acquisition of new Knowledge and Skills. It will also seek to develop positive **Attitudes** towards the subject being studied. The argument here is that curriculum development should use a KSA approach.

Activity Box No 23a

At this point you may care to write out the learning goals of your existing educational and training programme. The following KSA table may be useful, but do not feel confined to this, use your own framework if it will help you.

1a. What new knowledge do I want the students to acquire?	Indicators (see page 55)
1b. What areas of understanding do I wish them to develop?	
2 What are the skills I would like the students to develop?	
3 What are the attitudes which I would hope they will build for themselves?	
4 What is the purpose of this learning? What do I want them to do after the end of the course?	

2.3 Measures of achievement:

a) Indicators of final achievement: It is important for curriculum developers not only to set out the goals and objectives of the curriculum carefully, whether they lie in knowledge or skills or attitude development, but also to set clear indicators of whether these goals are being achieved or not, and to help the students to make their own assessment of their progress. These measures of success are discussed in more detail in Chapter IV, Part 3.

b) Milestones: Measuring achievement should not, however, be left to the end of the course. Both the students and the teachers will need to develop ways of showing to themselves during the course whether they are making progress in the right direction or not. The establishment of 'milestones' to be arrived at as the course progresses will be helpful.

As discussed in more detail later (pages 9 1-92), knowledge and understanding are likely to be best tested not by formal examinations and tests but by the knowledge being applied to solve real problems. Skills are best tested by their use in situations which are as real as possible. The assessment of attitudes is more difficult, and will rely on personal judgements being made by those who know the students over a long period of time. Above all, the goal of any form of assessment and evaluation is to help the students to assess and evaluate themselves.

Activity Box No. 23b

You may find it useful to add in the second column of your table 23a above the indicators of achievement, which you are planning for the students in your course, either as milestones along the way, or a final assessment of the achievements.

2.4 Barriers to learning

Those who are planning the curriculum will need to take account of the barriers which exist to effective learning. Studies such as those by Cross (1981) have identified three main groups of barriers:

a) Programme barriers: First, there are those barriers which exist in the learning programmes. These include false information about the courses, wrong timing of the learning programme, bad relationships between the student and the source of the learning, or between students and other students, the wrong level of work, etc. Such matters lie within the control of the curriculum developers and educational managers to change.

b) Learner barriers: Secondly, there are barriers which exist within the learner - the existing value systems of the students, their feelings of lack of confidence or lack of motivation, the demands of prior concerns, the existence of other factors which they feel are more significant

than the source of learning, their existing knowledge, etc. Such factors indicate the importance of stressing the attitudinal development of the students in the curriculum.

c) Situational barriers: Thirdly, there are those barriers which lie in the outside context. For example, there is no point in teaching about fertilisers if fertilisers are not available at the right time or are too costly. There are many teaching-learning programmes which have foundered because the planners did not examine in detail the situational barriers which will prevent the implementation of learning. The curriculum must be concerned with such factors and how to cope with them. In this, the contribution of the stakeholders can be invaluable. This will be the theme of the next section.

2.5 Conclusion

Since the aim of the curriculum is to help the students to learn, it is important that the curriculum should take into account the various factors which affect learning:

- it should arise from the felt needs of the students, start where they are, not where the institution wishes to start;
- it should not be solely concerned with knowledge and skills but also with developing understanding, and attitudes - and with behavioural changes which demonstrate the effectiveness of learning;
- it should use active rather than passive methods of learning;
- it should be based on the provision of learning experiences; and
- it should be built round the achievement at different stages of set measures of success.

CHAPTER II- Further reading:

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Workers
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- Baltimore: Johns Hopkins U.P. Cross, K.P. (1981) *Adults as Learners: Increasing
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CHAPTER III: PARTICIPATION AND CURRICULUM DEVELOPMENT

Part 1: PARTICIPATION AND STAKEHOLDERS

Part 2: THE STAKEHOLDERS AND CURRICULUM DEVELOPMENT

Part 3: WORKING WITH THE STAKEHOLDERS

CHAPTER III: PARTICIPATION AND CURRICULUM DEVELOPMENT

Part 1: PARTICIPATION AND STAKEHOLDERS

This guide is concerned with participatory approaches to curriculum development. We therefore need to discuss the way in which participation works. This chapter looks at

- participation and its characteristics;
- the stakeholders; and
- different ways of involving them in the process of curriculum development.

Activity Box No. 24

To help you to deal fully with the issues involved in this section, we suggest that you choose a development programme or project which is near to you. Try to obtain some of its papers and reports; perhaps you could go to visit it. As you work through this part of the guide, you should apply some of this material to your development case study. We suggest that you write down here a few details of the development programme you have chosen.

1.1 Participation in Development

Today there is very little need to justify the principle of ‘participation’ in development programmes. Almost every project has the label ‘participatory’ attached to it. But there is some need to examine what we mean by ‘participatory’ and the principles which underlie the concept so that we can use them appropriately in curriculum development.

a) The meaning of participation: Participation means different things to different people and in different circumstances. For some projects, participation simply means that people attend the project’s activities. In most cases, it means that other people are consulted. In the most fully developed forms of participation, the group of people involved control some or all of the processes.

Basically, participation means that the subjects of any project are actively involved in some way in the project during various stages - planning, implementing and evaluating its activities rather than just receiving the project from others.

Participation draws a distinction between 'insiders' and 'outsiders', although here as in curriculum development, these two concepts are not simple ones.

It is important to realise that participation does not always mean that the complete control of the whole project belongs to the insiders alone. In many cases, a balance is needed. Participation will mean that the special interests and experiences of all the different members of the project group are used to the full - and that also means that the special roles of the project initiators and/or supporters, the outsiders, are built into the project.

b) How the concept of participation developed: The process which led to the elaboration of the concept of participation began with research. Most attempts at 'needs analysis', which is usually the first stage in creating any development project, were traditionally conducted by outsiders. But as the concept of participation emerged, increasingly insiders came to be more and more involved - in providing and then in collecting data; in identifying the subjects to be researched; in presenting the findings etc.

Participation has spread from research and needs assessment to all forms of development projects. Wells and clean water sources are now being provided in a participatory manner; agricultural development is planned and sometimes executed in a participatory fashion by asking the farmers jointly to define and to take responsibility for the activities.

There is still a wide variety of activities which go under the name of participation. It may be useful to explore these by looking at the way in which work with farmers has developed over the years. The first approach to participation in agricultural extension was to encourage the field workers to help the farmers to determine the format of the teaching-learning programmes - e.g. to choose the location, the time and the length of the programme. But the topics of the learning programme were still determined by the researchers and/or the field workers. Later, it was thought to be essential for motivated learning that the farmers should choose the subjects of the learning programme - that extension should address their problems, not the problems which the researchers and/or the extension staff had identified. Extension workers helped the farmers to identify their problems and took these problems away for the research and technical staff to solve; then the extension workers passed the answers back to the farmers.

The problem with such an approach, although participatory in many ways, is that it does not lead to sustainable development. The farmers were not being helped to solve their own problems. They continued to rely on the extension worker and his/her resource base to solve the problems which they have identified. Modern approaches to participation in development such as 'indigenous development' and the various forms of Participatory Rapid/Relaxed/Rural Appraisal go further than this. The aim is to encourage the farmers to continue to learn effectively without the extension worker. Farmers are being urged not just to identify their own problems, but to devise strategies to solve these problems independently in their own ways without relying exclusively on the extension worker. The goal is for farmers to control their own learning processes.

It is not the developer but the developing group which must - if there is to be meaningful development - make decisions, define objectives, determine priorities, formulate policies, initiate and sustain action in respect of all fields of purposive development change. (Bodenstein, 1974 page 2)

Currently, there is a movement towards participatory learning and action (PLA) which highlights learning as the core of any development activity and emphasises also the need for action to follow. This fits well with the earlier discussion in this guide (Chapter II, Part 1) regarding the experiential learning cycle and meaningful learning.

c) Key issues in participation and research: PCD depends on a clear understanding of some of the key issues which have emerged during the discussions which have surrounded the concept of participation. The following are among the most important of these.

i) The concept and practice of participation is a reaction against outsider-led research, initially on the grounds that outside experts often got the results 'wrong'. The failure of projects and the criticism of insider groups indicated that the perspectives of outside experts did not always coincide with the perspectives of the insiders.

ii) This led to the understanding that there are several different view points or 'pictures' to be drawn; that none of these is 'true' or truer than any other; that there is no one true situation; that the picture drawn by the expert simply reflects the value system of the expert and not necessarily the value system of the insiders.

iii) This led to the appreciation of the value of insider or indigenous knowledge. Indeed, there is no such thing as 'the expert'; everyone is an expert in some thing or other.

This is not (and this needs to be emphasised) simply a matter of saying that the visiting experts need to consult the insiders and to take from them their local experiential knowledge (e.g. on local medicines, etc.) so that it can be used by the expert in designing new activities.

Rather, it is saying that insider knowledge and views are just as important and true as the knowledge and views of the experts. We have seen above that there are many different kinds of knowledge. Participatory approaches to knowledge suggest that although these all differ, they do not form a hierarchy of knowledge. There is no form of knowledge which is 'higher' than any others.

iv) This leads one to ask, who really owns knowledge? As long as education and training are seen in terms of the expert imparting knowledge to ignorant learners, then knowledge will be thought of as belonging to the expert, not to the learner. But if knowledge is thought of as a series of acts of knowing' - in other words, if knowledge is not a thing but an activity which both expert and learner do - then knowledge does not belong to the expert. The distinction between knowing, researching and learning is broken down.

v) Such a view leads to the realisation that the participants in any programme will learn best by engaging in the activities of a project; that participation is a tool of learning as well as a right of the participant group.

vi) There are two other conclusions which come from the concept of participation. The first is that knowledge cannot be separated from skills and values and attitudes. People are a whole, and human development needs to be built on a holistic approach to people. One cannot just 'pass on knowledge' to people on a 'deficit' model. What one can do is to help people to develop themselves in all their aspects.

vii) Finally, participatory research and extension makes one realise that knowledge cannot easily be compartmentalised into academic subjects. People's lives do not centre around history or geography or economics or science. People are people, they are rounded persons; and the lives they live centre around concrete experiences, concerns, issues and problems - and these cannot always be dealt with by academic subjects.

What can be concluded here is that those engaged in 'participation in development' are saying exactly the same things as those who have developed modern approaches to teaching and learning - that knowledge is something created by the learners and not something transferred from the expert to the ignorant.

Key Point 7 Characteristics of Participation in Development

1. The programme is not outsider-led alone, but jointly-led.
2. No one picture is true, not even that of expert; there are lots of true pictures.
3. Insiders have valuable knowledge which is true for them.
4. The expert does not own knowledge; each person makes his/her own knowledge.
5. Participation is the process by which all the participants (including the outsider expert) learn.
6. Values and attitudes are as important as knowledge and skills; knowledge and skills cannot be compartmentalised.
7. Local concerns are concrete and integrated; they cannot be compartmentalised into academic disciplines.

It is this set of insights, which underlies participatory curriculum development.

Activity Box No. 25a

You may wish to examine your development case study to see what approach to participation is reflected in it.

1.2 Participation in Practice

The practice of participation, like the definitions, differs greatly from place to place and from project to project. Some projects discuss only a very few parts of the project with the intended beneficiaries and other stakeholders. Literacy projects for instance ask the potential learners at what time and where they would like to meet, but they rarely ask the participants what reading material they would like to learn to read. Other development programmes involve the participants more widely in the project planning and even in its implementation. Only a few programmes at the moment involve the participants in the evaluation of the success or failure of the projects, although that is growing.

Participate with whom? Participation is usually an activity, a relationship, between project planners and an identified group. It may be an already existing local group, or it may be those who turn up at the first meeting, ignoring those who do not attend.

In education and training programmes, non-formal education is more participatory than formal education indeed, one definition of non-formal education is that it is that form of education and training over which the students have a large measure of control. In formal education, virtually all the planning and control lie with the institution and the teachers and lecturers, not with the students. In non-formal education, the participants have much more say over what they learn and when and where, although less frequently how.

Negotiation: In some development projects and education and training programmes, participation consists of a series of negotiations between the providing agency and the direct participants. Sometimes these are done solely at the beginning of the programme; in other cases, they are done periodically to ensure that the changing perceptions of the various participant groups are taken into account as the project or course develops.

Stakeholders: As noted above in Chapter I, there are others who are involved, people and groups who have some interest in the eventual outcomes of the development programme or course of study. Identifying who the stakeholders are is sometimes a complicated procedure. If the programme is to be fully participatory, however, it is important that these other persons

and groups should also be involved in the process of participation. This is the theme of the next section.

Activity Box No. 25b

List the stakeholders in the development programme which you have taken as a case study above. To what extent are they involved in (planning, implementation and evaluation) the programme?

CHAPTER III: PARTICIPATION AND CURRICULUM DEVELOPMENT

Part 2: THE STAKEHOLDERS AND CURRICULUM DEVELOPMENT

Traditionally, the curriculum of any programme of education and training has been considered to be a private matter between the institution (be it school, college, university or training centre), teacher and students. It is not normally a matter of public concern. Indeed, when a curriculum becomes a matter for public concern, it is usually an indication that something has gone wrong. It is often thought a well-run educational institution should be able to manage its own affairs without outside interference.

But as we have seen, there are other people and groups outside the boundaries of any educational institution who have an interest in what goes on inside them. These people or groups hold a stake in the results of all the hard work that goes on inside. It is the premise of this guide that if these people and bodies are involved in helping to develop the curriculum of the education and training programmes, then the work of education and training institutions will be much more effective.

This section discusses the following subjects:

- who these stakeholders are;
- why curriculum developers should work with stakeholders; and
- how to select the stakeholders who should participate in developing a curriculum.

2.1 Who are the stakeholders?

Activity Box No. 26

You may find it helpful if to write down a list of those people or groups who might have some sort of interest in your new course or training programme and its curriculum.

General issues: Attention needs to be drawn to a number of general issues at this point.

a) No common list: There is no general list of stakeholders which will apply to all courses or programmes. Each course and sometimes each part of a course will have different persons or groups interested in it. For example, the livestock part of an agricultural training course will have a different set of stakeholders from an agro-chemical part of the same programme.

b) General or specific interest: There will be some stakeholders who have only a general interest and others who have a specific interest. For example, members of the Board of Governors of a college will want the college to do well; they will be concerned with the details of any course only if it fails to recruit students, if there are complaints about the course from the students, if there are large numbers of students who fail the examination, if the graduates fail to get jobs, or if there is some other special cause. On the other hand, employers will have a specific interest in a course. They will wish to make sure that it includes material and activities which will make its graduates useful to them as employees.

On the whole, those who have a general interest in a course are not likely to be willing to give much time to helping to develop the curriculum. They will most probably say that they wish to leave it “to the experts”. But one or two of these persons would be most useful if a way can be found of including them in discussions on the curriculum. However, the main partners in developing an effective curriculum will come from those who have a more specific interest in the course.

c) Process or product: Some of the stakeholders will be more interested in the process of the course, others in the product. The government and others who provide the funds will be less concerned with what goes on inside the course; they want to know that what comes out at the end is useful and acceptable. But others, such as the writers and producers of textbooks and other materials, will be more interested in what is taught and how it is taught.

d) Supportive or hostile: While most of the stakeholders will be supportive, be prepared to identify some stakeholders who will be opposed to your course because their interests are - threatened. A literacy programme in India which tried to identify the stakeholders found that, while the publishers and sellers of books, newspapers and magazines were supportive, the professional writers and one or two castes who felt that reading and writing belonged to their members exclusively were hostile since they perceived that their interests were threatened.

e) Overt or covert: Some of the support and the opposition will be overt and some of it will be covert. It depends on the cultural value system within which the programme is working.

f) Whole-or half-hearted: Similarly, some of the stakeholders will be whole hearted in their support, while others will be less than fully committed.

Policy-Makers: There are many types of policy makers. Because they may make decisions which affect the provision of education and training programmes, they are a very influential group. The way in which policy is formed, the relationship between policy implementation and evaluation, and the development of new policies, all may influence who are the participants in the curriculum development process and the roles they play. Policy makers help to create the climate within which a particular educational or training programme is valued or not valued. They help to set the context for education and training programmes. For this reason, it is important that they are included in some way or other in the curriculum development process.

Politicians and educational administrators: These two groups often have the power to make or break educational programmes. Historically, there has been a difference between the curricula of countries which have had a more or less stable regime and those which have experienced revolution. The stability (or lack of stability) of the environment in which the education or training takes place depends to a large extent on political groupings. In some situations, the political context may be stable and long-lasting; in others, it may change frequently, requiring regular revisions of the curriculum. Politicians and government officials will often make major decisions about the provision of education both locally and nationally. They may also be responsible for the provision and allocation of resources, financial, material and human. In addition, they are likely to hold strong ideological beliefs which affect the values they bring to education and training. For this reason, the participation and support of those with political influence should never be under-valued.

Educational experts: There are many educational experts who, through research and experience, have developed ideas and theories about the way the curriculum in any subject area should be developed and the purposes and outcomes of education and training programmes. Some of them may be local, in the sense that they are from the locality where the curriculum is to be developed and/or implemented, and may therefore be familiar with the background situation. Others may come from farther away, and will be called upon as consultants to share their expertise, particularly where innovative approaches are being developed. Yet others may be involved only through consulting their publications, but in this way they can have a direct impact on the process of developing a specific curriculum. But such experts are only one group among many stakeholders. It is important, therefore, that in PCD they are seen as participants along with others rather than as the main source of wisdom upon whom the whole curriculum development process depends.

Employers and/or professional bodies: Employers and professional bodies are another very influential group. Education and training programmes are often designed to prepare students for future employment or are provided for people who are already employed (in-service education and training). Employers will be anxious to ensure that when trainees complete their education or training, they have developed knowledge, skills, attitudes and beliefs which will enable them to serve the needs of the organisation in which they will work. Employers therefore often set specific requirements which employees must meet before they are recruited or retained in their workforce.

In effect, employers are already making their own value judgement about a training programme. They may accept it as being useful; they may use it as the basis for providing their own further training; or they may reject it altogether as more or less useless. Any qualifications resulting from the successful completion of a course of study carry a 'street status'; they may not be recognised or accepted unless the curriculum is acceptable to employers.

Education and training programmes (especially in-service) are also expensive. Employers are often reluctant to contribute to the cost of such programmes unless they feel that the performance of their employees will be improved as a result. On the other hand, some employers invest substantially in courses which they feel to be particularly relevant to their organisational needs, and in these cases will have a keen interest in the curriculum of those courses.

Clients: Apart from employers, there will be others who will draw upon the expertise and experience of the graduates of a course, people who will consult them on various matters. These too will quickly make a judgement about the value of an education and training programme. Just as the clients of architects and lawyers will assess the way these professionals have been trained from the service they provide, so too farmers will evaluate the performance of agricultural research and extension staff and the worth of their training by the way these workers meet their needs.

Funders: As mentioned above, education and training are expensive. Financial support is vital, to provide resources, both human and material, for courses and institutions. Funding may come from government, from non-government organisations, from private bodies such as firms or community organisations, or from individuals such as the students themselves or their parents. These groups already have a strong stake in a course, a programme of study or institution. Whatever the source, funders will usually expect that their money is being used effectively. They may therefore set their own goals and objectives for training programmes. They will certainly evaluate the success or impact of the curriculum in order to make decisions about future financial support. In effect, funders exert a large degree of control over the development of the curriculum. To involve them more directly in the process of developing a new curriculum may help to mobilise support and avoid subsequent disagreements.

Parents: The parents of the students are often over-looked in curriculum development. Yet they are frequently the ones who make decisions about which institutions their offspring will attend, what courses are most valuable for them, whether such courses will lead to the kind of job which the parents wish for their children, and whether the context is safe for their children to live in for a number of years. This stakeholder group is not normally consulted about the curriculum, and yet they often have a major interest in it.

Past students: Another group which will often have strong views about the curriculum of a course will be the students who have already passed through it, and who have used it or are seeking to use it as the basis for earning a living. Their interest is based on experience. They still have a stake in the course, since if it were to lose credit in the community, their own qualifications would be devalued. On the whole, they may be less concerned about the future of the course, but they will be able to offer valuable and constructive comments on the programme and course.

Interest groups: In many cases, there will be other groups who possess experience and expertise which they may be willing to share in the development of a curriculum. For example, in the design of a new study programme on the environment, the valuable insights of national and local pressure groups in this area should not be ignored, not least because they have been engaged for some time in trying to educate and train the general public and more specific groups in environmental awareness. On a more practical level, they have many materials which are useful for the course.

This is not a complete list of outside stakeholders in any curriculum development activity. Manufacturers of agro-chemicals, for example, may be another group to be considered for

some courses. The range and number of stakeholders will depend on local situations and particular contexts.

b) Insiders

The insider stakeholders are more obvious and are more frequently involved in developing the curriculum. They include:

The Training Organisation: Most education and training is developed and implemented in an organisational context. This applies as much to non-formal as to formal education and training. The school, college, university or other institution in which the course is set or the body (government or NGO) which provides the training will be a major determinant of the curriculum.

These organisations are administered by managers who are likely to have a great deal of power and influence over the way the curriculum is developed. They may be involved in the process directly themselves or allocate the task to others within the organisation. In some cases, they may be the ‘gatekeepers’ who enable external policy decisions to be implemented. They will almost certainly be persons who will assign the time available for the course, the range of competing interests which the students will have to face, the rooms, equipment and materials (e.g. library purchases) and so on. And they usually determine the ‘culture’ of the organisation, the climate within which the course will take place. This will influence not only the nature of the curriculum (it is very hard indeed to run a participatory training course within an institution which is hierarchical and not participatory in other respects), but also the degree to which other persons can or cannot participate in the process of curriculum development.

Trainers/teachers: Surprisingly, trainers and teachers are not always involved in developing a curriculum, although they are the people who are most engaged in its implementation. They have a very practical contribution to make to the process of curriculum development. They are more aware than anyone of the types of persons who come for training, their learning styles, and their needs for further education and training.

This is not to say that teachers and trainers always use the most appropriate teaching- learning methods. Some of them may be subject-matter specialists who have never had the opportunity to learn about different methods of teaching and learning. Also, subject-matter specialists often concentrate more on content than on methods; they frequently try to include as much of their own subject matter into the curriculum. This can lead to an over-crowded, theory-based curriculum, irrelevant to the needs of the learners.

It is strange that this group is so often left out of the curriculum development process. They may be consulted, but even that is relatively rare. On the whole, most teachers and trainers teach a curriculum and materials which others have prepared. Some of course prefer this; they do not wish to create a curriculum for themselves; they feel safer with what the experts have told them to teach. But the loss of “motivation, enthusiasm and commitment” which often comes with this exclusion will undermine the effectiveness of the education and training programme. One of the main reasons why many teachers are demotivated is that they do not feel that they ‘own’ the course they are teaching.

Students: It is frequently stated that as far as possible the students should be consulted about what they are being taught. They need to feel that what they are learning is relevant to them. The teachers and curriculum development workers need to assess the real educational and training needs of the students in order to know where they are starting from and what new knowledge, skills and attitudes they will need to develop.

This is of course very important; and it will sometimes be possible to involve students, especially in in-service training. But in many other cases, it may not be possible.

Material Producers: There is one other group (who may be regarded as outsiders or insiders, according to one's point of view) to be considered. These are the people who write, or publish and distribute, the teaching materials. They greatly influence the contents of any course. They usually even determine the sequence in which the material is covered. Their influence is enormous. Yet they are rarely included in any curriculum development process, unless they are educational experts in their own right. However, if they are to be included (and experience suggests that they are very valuable contributors to the process of curriculum development), they should be regarded as one group among many, not as the most important group. Materials must follow the curriculum, not determine it.

2.3 The changing list of stakeholders

It is important to remember that any education and training programme is set within a social context which is constantly changing (see pages 132-135 below). PCD seeks to find ways to ensure that the context can influence the making of the curriculum.

This means that the list of stakeholders is not fixed once for all. Although we may think that we have identified all the stakeholders, there is always the possibility that some have been missed out, or that some may emerge later in the process of developing the curriculum or that changes in society will create new stakeholders who have an interest in the programme. It is important to allow for the possibility of new stakeholders becoming involved. PCD is an ongoing process which draws in more and more people as the programme process.

Activity Box No 27b

You may care to look again at the list of stakeholders you identified above, to see which groups you have included which are not on the list above. Are there any others you would now wish to add? Which ones would you define as 'insiders' and 'outsiders'?

III PARTICIPATION AND CURRICULUM DEVELOPMENT

Pan 3: WORKING WITH THE STAKEHOLDERS

The fact that there are persons and groups who have an interest the cultural raises the question as to whether it is necessary to work with them in the process of curriculum development. If it is decided that this is desirable, how can it be done?

This sect will examine

- why we should work with the stakeholders; and
- how we can identify and work with the stakeholders

3.1 Reasons for working with the stakeholders

Most people who engage in curriculum development do so on their own. They do this for a variety of reasons:

- a) it may never have occurred to them that anyone else should be involved;
- b) they may think that other people are not interested in helping to develop a curriculum.
- c) they may feel that they are the experts and other people are not experts; or
- d) they may prefer to work in isolation.

But we have seen that a wide range of people have an interest in the development of curricula. Sometimes the interest of these stakeholders will be very keen, sometimes it will be less keen. But it will exist.

Activity Box No 27 c

What are the main reasons for involving any of the people on your list above in working with you on developing your curriculum?

There are several reasons why as many of the stakeholders as possible should become involved in curriculum development. The following are some of the reasons; you may be able to add others.

Stakeholders should be engaged in helping to design the curriculum because:

- a) If they are excluded, they may feel negatively about the course and may even hinder its development. If they are included in the process of developing the curriculum, they will come to feel that they own the course in part, that they are identified with it and will therefore support it. Participation creates commitment to the programme.
- b) They will have much valuable experience and many ideas which may be used to design the curriculum.
- c) Some of them will be in a position to provide or withhold resources for the course.
- d) They will help to ensure that the curriculum is relevant to the students and to the region.

Participation in the curriculum development process is a vital goal. Lewin (1991) points out that there are many examples all over the world of attempts to change educational programmes which have failed because those who have the power to make the changes at the point of implementation did not share, or indeed sometimes even actively opposed, the interests of those who devised the changes. Lewin goes on to say that “educational systems are people systems”, and that the effective operation of educational systems and any changes which need to be made in them depend on “the motivations, enthusiasms and commitment of the members” of these systems.

The aim of developing participatory approaches to curriculum development is to help all those engaged in educational programmes to develop these “motivations, enthusiasms and commitment” and to use them in support of training programmes.

The following example from the Sudan shows the adverse results of using a non- participatory approach in a development programme:

“A major problem identified in an institutional technical assistance programme in the Sudan was a lack of consultation between expatriate project staff and local staff. This was observed both at the planning and implementation stages. Observed effects were perception gaps, decreased commitment and motivation, one-way and top-down communication, antipathy and intolerance, stifled energies and the creation of dependency of one group upon another. Needless to say, these elements had an adverse effect on the project”. (Leach 1291)

The purpose of participatory curriculum development is not just to draw upon a wider collection of experience and wisdom in designing the teaching-learning programme so as to achieve the learning goals. Rather it is to ensure at the planning stage of any education and training programme that a lack of participation by the parties concerned with the programme does not lead within the school, college, university or other institution to decreased commitment and motivation, and antipathy and intolerance.

3.2 Identifying the stakeholders

Two questions need to be raised at this stage:

- do we need to identify all the stakeholders? and
- how do we identify which stakeholders should participate in developing the curriculum?

a) Do we need to identify all the stakeholders?

The main reason for trying to list all the stakeholders is because, if this is not done - there is a danger that some individuals, groups or organisations may be omitted. This may be because they are unidentified or because a conscious or unconscious decision is made to leave them out.

This last point may seem strange, for we tend to assume that education is for the good of all. But unfortunately, the presence of ideological and political agenda (as discussed in Chapter I Part 2 above) may result in a curriculum being developed by an elite group of educational experts. They may of course be advised by a select number of interested or influential parties such as politicians, policy-makers, employers, funding representatives, the people who are deemed to be educationally 'important'.

Thus, a second reason for trying to identify all of the stakeholders in any course is to assess and if necessary challenge the value judgements about the persons and groups who have traditionally been most involved in educational and training programmes.

b) How are the stakeholders who will take part in the curriculum development process chosen?

An assumption that can be drawn from the above discussion is that, in order to achieve a participatory approach to curriculum development, it is necessary to involve all the stakeholders in the process. This is, of course, an over-simplistic statement. It will not always be practicable, let alone desirable, to involve all the stakeholders in the detailed process of developing a curriculum.

Once such a list of stakeholders has been compiled (for example, through a brainstorming session with a group of interested persons, which may result in the construction of a form or table as shown in Activity 27a), an assessment will need to be made as to how many are willing to participate in the process of developing the curriculum, how many will be available, and how each group or individual may best be involved.

There is no easy way of making such a decision. It is one which the curriculum development workers must make for themselves. It will of course be affected by the time available for the process, by the local "political" (with a small 'p') situation, and other factors. It will be based partly on who is available and willing to join in the curriculum development process.

But, mainly, it will be based on value judgements. Curriculum development workers will find themselves trying to determine which views are most valuable to them. One way of approaching this is to think in terms of the importance and influence of each stakeholder group or individual for the development of the curriculum. Such decisions are acceptable as long as these value judgements are made consciously, with justification, and are reflected upon. For all education and training is carried out within a specific socio-cultural context, and this context is very influential, as are the beliefs and values of the curriculum developers.

It is important to try to make sure that there are representatives of as many different groups of interests as possible involved in the process. It is in the interaction between different perspectives that really creative curriculum development takes place, and new insights are gained from meeting a wide range of different interests.

3.3 General principles of working with stakeholders?

If it is decided that the process to be used in building the curriculum is a fully participatory process (PCD), then it is necessary to determine how the curriculum developers can work with the stakeholders in order to develop an appropriate curriculum for that specific situation. One very important general principle which emerges from the experience with PCD so far is the distinction between consultation and participation.

Activity Box No 28

It may be worth asking yourself two questions before you go any further in this section:

1. If you have been involved in developing a curriculum in the past, how did you go about identifying other stakeholders?

2. What methods would you use now to find out who can participate in the development of a curriculum?

In consultation, we listen to someone's views and then make up our minds. We assess not merely what they say but also how much value we shall attach to it. We may agree with what someone or some group says, not because it accords with our own experience but because we believe that they are eminent in a particular field; we may disagree with what others say not so much because what they say seems to be inaccurate, but because we do not see them as being important. In other words, we share with them the discussions, but we keep the power of making decisions to ourselves.

In full participation we share not just the discussions but also the power. We agree that whatever agreement results from our discussions will be carried out.

It is clear that there are many fine shades between these two extremes; the difference between them is not clear-cut.

It is the contention of this guide that those involved in developing a curriculum should move as far as they can towards a fully participatory process of curriculum development, a process where the decisions lie with the stakeholders, rather than one where the decisions rest finally with the educationalists after consultation with the stakeholders.

3.4 Achieving participation in practice

Working with the stakeholders in the development of a new curriculum will call for the answers to two questions:

- what role they will play in the curriculum development process.
- what methods of working we shall use to involve them in the process.

a) Making decisions on the roles of different stakeholders and on the aspects of the curriculum development process in which they will be involved

The discussion above has indicated that the involvement of all stakeholders in the curriculum development process is vital. Once a form or a table has been generated as a means of listing the stakeholders and estimating their particular interests, such as that suggested in Part 2 of this section (page 69), some difficult value judgements must be made about the relative roles of these stakeholders, and how they can engage in a meaningful way in the development of the curriculum. This can be done in a number of ways.

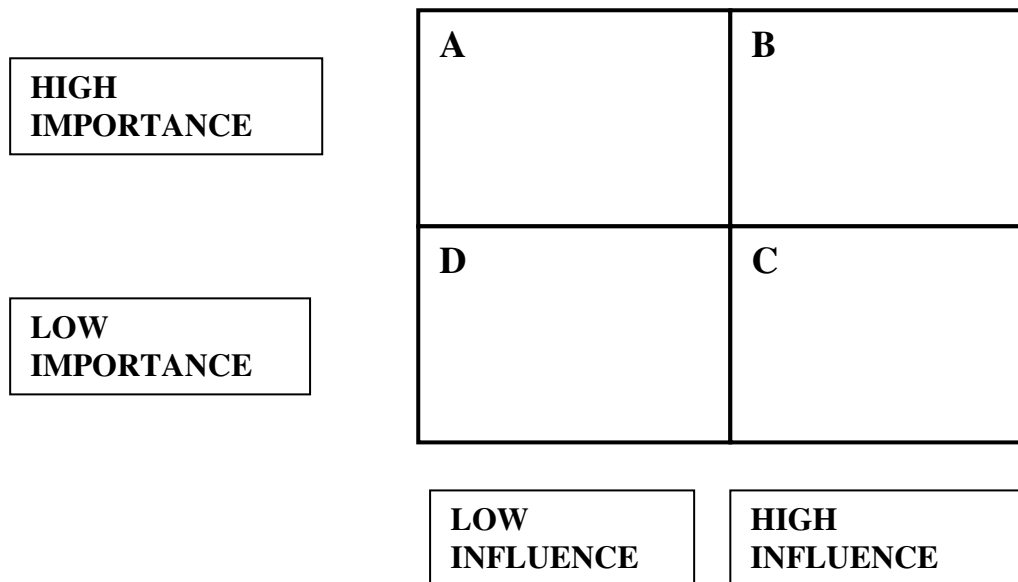
i) create an “importance/influence” matrix

In this exercise:

- **importance** indicates the priority given to satisfying stakeholders’ needs and interests through curriculum development and subsequent training in order for it to be successful.
- **influence** is the power which stakeholders have over the curriculum development process. It is the extent to which people, groups or organisations are able to persuade or force others into making decisions and taking action.

This can be shown using a matrix:

Fig 9. An ‘importance/ influence’matrix



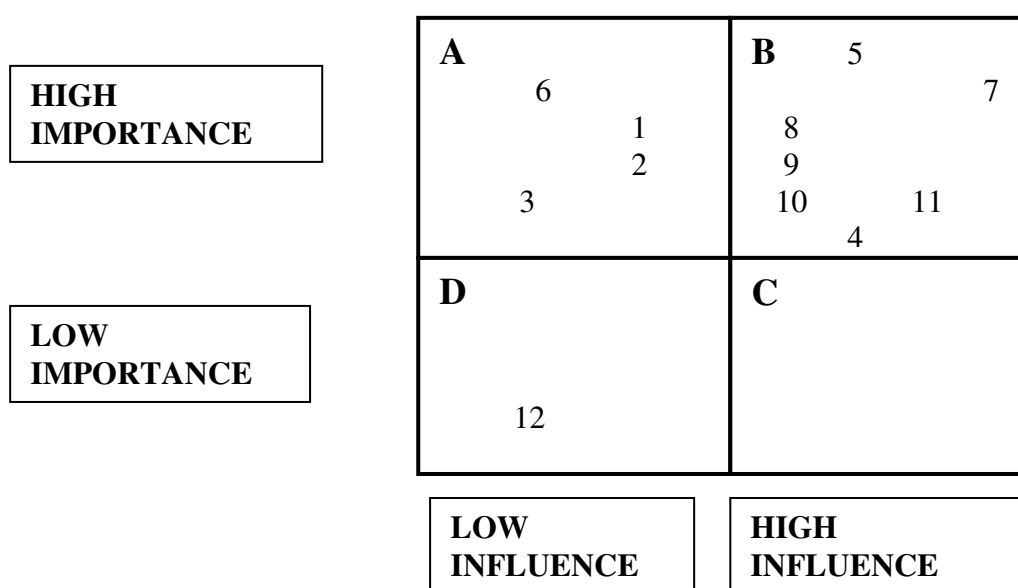
A mark is placed on the grid, according to the level of importance and influence of any particular stakeholder.

Key to the matrix

- stakeholders located in box A: these stakeholders will require special initiatives to protect their interests;
- stakeholders located in box B: a good working relationship needs to be created with these stakeholders;
- stakeholders located in box C: these stakeholders may be a source of risk, and will need careful monitoring and management;
- stakeholders located in box D: these stakeholders may have some limited involvement in evaluation but are, relatively, of low priority.

In Vietnam, for the development of social forestry training programmes for extension workers, this exercise produced the following matrix:

Fig. 10 Example of an “importance/influence matrix from Vietnam



1. Extension centre staff
2. Field staff
3. Farmers
4. Office staff
5. Mm. of Agric. and Rural Dev.
6. Teachers

7. Donors
8. Network members
9. Managers
10. NGOs
11. Learners
12. Students (BSc)

The preparation of such a matrix is useful in two ways. First, the discussion and reflection which a group undertakes in deciding the relative importance and influence of stakeholders is valuable in itself, as important issues not considered initially may emerge. Secondly, the location of each stakeholder within the matrix can assist curriculum planners in making decisions about how they can be involved most effectively:

ii develop a stakeholder participation matrix

Within the curriculum development process, there are five main areas of activity, which form a curriculum development cycle. These can be summarised as follows:

- carrying out an analysis of the situation and the training needs (TUNA)
- setting the aims of the curriculum
- planning the curriculum
- implementing the curriculum
- evaluating the curriculum

In practice, these areas may overlap and different stakeholders may be involved in different areas of activity, sometimes several areas. The type of involvement of the stakeholders is likely to vary also. It may be necessary only to inform some stakeholders of current or future plans and activities. Some stakeholders may be consulted (see above pages 78-79); others will participate in a much more vigorous way and be partners in the process of curriculum development. Some stakeholders, naturally, will be in powerful positions and control key aspects of the curriculum development process. The importance/influence matrix should have helped in the identification of these different roles and where each stakeholder will be active.

The results of the analysis of the roles and types of participation of the various stakeholders can be presented in a matrix as follows:

Fig. 11 A stakeholder participation matrix

Type of Participation	INFORM	CONSULT	PARTNERSHIP	CONTROL
Stage in Cycle				
TNA				
AIMS				
PLANNING				
IMPLEMENTATION				
EVALUATION				

b) Methods of working with the stakeholders

Once the stakeholders have been identified, their relative importance and influence analysed, and the points in the curriculum development process in which they will be involved, there are several different methods of working with them. Some individuals or organisations will not be easily available or willing to assist with this process; others will be closer to hand and more willing to help.

a) One method is to interview them separately with a questionnaire or with an open interview technique. Then the various views can be compiled into a summary and the areas of overlap identified (a good introduction on interviewing methods and approaches is provided in Pretty et al 1995).

There are many advantages to this approach. It enables a large number of stakeholders to be included. It identifies areas where the expectations of the achievements of the course are common to different groups and interests. It enables very busy persons to contribute their expertise most efficiently.

But such methods will not bring about the dynamic interchange of views which is most creative in developing new ideas. And they may lead to one single very pertinent idea being ignored altogether simply because it came from one individual only, whereas if it were to have been presented to a larger group, it may have met with more widespread acceptance and even acclaim. And they will not lead to the deeper level of commitment, enthusiasm and motivation which come from fuller participation and a sense of identity with a group.

b) A more expensive (but less time-consuming) approach is though a residential or non-residential **workshop**. Participants may split into different working groups which examine elements of knowledge, skills and attitudes, and bring them together into a coherent whole. This interactive approach has great advantages - the process of debate between the different interest groups will often yield greater fruit than to interview each group separately. But some of the stakeholders may not be willing to devote much of their time to such an event.

c) **PRA or PLA methods** (see page 61 above) can be used for some of the stakeholders, for example, with farmers in relation to the kinds of knowledge, skills and attitudes needed by extension workers which a course may seek to develop. Such methods are time-consuming, and they will not be appropriate for all stakeholders (a good source of methods is provided in Pretty et al, 1995).

d) A **post-hoc evaluation** may be appropriate for some of the stakeholders. It is possible to seek the views of some of the clients, users of services, employers, government bodies and others on the performance and capacity of former participants of the course. The views of former participants and, sometimes, their parents can be obtained through tracer studies. From experience, such views are most valuable, since they include a more or less realistic assessment of the market value of any training course.

A mixture of methods seems to be most effective. In Namibia, a residential workshop was held with a group of middle level and field extension staff. These participants went out and interviewed farmers, college staff and some senior staff of the Ministry of Agriculture.

In Jamaica, a residential workshop brought together a rather wider group of college staff students in the existing course, government officials and members of local NGOs. These constructed a schedule and interviewed other interested parties such as local employers, farmers and other development agencies.

In South Africa, an open meeting, organised by staff of a farmer training institute, attracted farmers, members of the government extension service and NGOs, as well as representatives

of credit organisations, input suppliers and other commercial organisations. As a result, a c was formed to assist with the establishment of a network which covered a wide geographical area; members of the network then continued to obtain the views and contributions of stakeholders within their own locality.

These activities all led to the production of an outline of the learning objectives and, ultimately, the kind of course that would deliver these learning objectives. But it took time. PCD is not a quick process. If the curriculum is needed in a hurry, the curriculum developers will probably want to undertake its preparation themselves rather quickly. In this case they should be prepared for the lack of motivation, enthusiasm and commitment to the course which a centrally prepared curriculum will bring with it compared with one developed in a participatory way.

Activity Box No 29

Now is the time for you to decide how you will work with the stakeholders whom you have identified above. You are in a position to determine your own plan of action for PCD. Using the procedures suggested above, carry out a stakeholder analysis, and fly to write down for yourself a plan which shows how you will work with the different stakeholders.

3.5 Conclusion

This chapter has considered how to adopt a participatory approach to curriculum development. As the above examples show, developing a curriculum is a complex activity. The next chapter, therefore, looks at how to go about the process of creating the curriculum.

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CHAPTER IV: CREATING THE CURRICULUM

Part 1: SETTING THE LEARNING OBJECTIVES

Part 2: TRANSLATING OBJECTIVES INTO CURRICULUM ACTIVITIES

Part 3: PARTICIPATORY EVALUATION AND THE CURRICULUM

CHAPTER IV: CREATING THE CURRICULUM

Part 1: SETTING THE LEARNING OBJECTIVES

This section will deal with the following issues:

- how to set learning objectives for the curriculum; and
- the fact that involving stakeholders will increase pressure on the curriculum and will therefore lead to the necessity to select from many possible alternatives so as to create a balanced set of learning objectives.

1.1 Learning objectives as part of the curriculum

a) **Objectives or Activities?** When involving stakeholders in developing the curriculum, it will be useful to draw a distinction between learning objectives and the contents and activities which make up the curriculum.

The learning objectives are the results intended from the educational and training programme: the kind of persons who, it is hoped, will graduate from the study programme. In a KSA approach to curriculum development, such learning objectives will be set out separately in the three areas of knowledge, skills and attitudes. The curriculum will thus outline:

- what the students should know by the end of the course (knowledge);
- what they should be able to do (skills); and
- what kind of a person they should be (attitudes).

The curriculum comprises the learning objectives as well as the programme which the students will engage in and the context of those activities which will help them to achieve the learning objectives.

It is not always easy to keep the distinction between learning objectives and the programme itself. When discussing the necessary knowledge component, for example, some of the stakeholders will list a large number of areas of knowledge with which they feel graduates from any course should be acquainted. This will inevitably bring the discussion into the area of the activities which will bring about this knowledge development. Nevertheless, determining what should be known and how that knowledge should be acquired are different things, for there may be several different ways of acquiring new knowledge. It will be helpful if these can be kept separate when designing the curriculum.

Many stakeholders will be more interested in helping to determine the learning objectives than the learning activities. And this may be as much as can be expected of many of them. A number will feel that they do not know the best way to achieve such learning objectives. Others may not know what resources are available for such purposes. Several will not know what expectations the students will bring with them, or what kind of activities they will be able or willing to participate in. These stakeholders will wish to leave these matters to others whom they see as 'experts'.

Some of the stakeholders then will feel themselves unable to help much with developing the detailed programme of learning. Nevertheless, their views on such things as the balance between practical work and more theoretical work will be valuable. Their understandings of the need for experiential learning may balance those of the training institution which will often tend to be oriented more towards book learning (which is more easily examinable).

It is the contention of this guide that the more the stakeholders can become involved in helping to set out the curriculum activities as well as the curriculum objectives, the more effective will be the resulting programme.

b) KSA Approaches to Curriculum: What is important in PCD is to make sure that before all the stakeholders are aware that curriculum development is built upon a KSA approach. They are being asked to help to determine, not just the knowledge base of students and their competencies, but also the kinds of persons they will become, the attitudes they will develop through the education and training programmes provided for them. Learning objectives are needed in all these areas.

Most of the stakeholders will have been brought up through a formal education system which laid its greatest emphasis on knowledge transfer. For these persons, their view of teaching will be that of many teachers: the students must learn from the teacher and/or textbook and repeat what they have 'learned' in some form of examination. What is more, most of them will be among those who benefited most from this system. They will have been those who passed examinations and collected certificates and other qualifications. They will tend to believe that education means knowledge most of all; they will tend to see theory as being superior to practical knowledge.

This will not of course be true of all the stakeholders. Employers, for example, may well place greater stress on practical knowledge than on theory. Farmers too will often have had less formal education. These will stress practical skills and sometimes personal characteristics more than theoretical knowledge. This need to keep a balance between knowledge, skills and attitudes is why a wide range of stakeholders such as farmers and others needs to be included in the process of curriculum development.

One way to ensure effective participation is to draw upon the stakeholders' particular concerns. It may be possible, for example, to ask employer stakeholders to detail what they would look for if they were interviewing for a post within their organisation in terms of:

- what sort of knowledge they would expect a prospective employee to have;
- what sort of skills they would expect him/her to have developed already; and
- what kind of attitudes they would like him/her to possess.

The same can be done with other groups of stakeholders, either through discussion or role-play. Task analysis and drawing up specimen job descriptions will also be valuable tools for working with the different stakeholders, for each of them will see the jobs and tasks in different ways (for these and other tools, you may care to look at Chapter 3 of *Planning for Effective Training: A Guide for Curriculum Development* FAO, Rome 1993). In every case, the personal growth elements of the learning objectives will be as important as the knowledge and the skills objectives.

c) Writing the Learning Objectives: As discussed above, an objective is a statement of what students will be like or what they should be able to do after successfully completing a given course of instruction or being exposed to a given learning experience. In other words, there should be a change in behaviour which should be measurable in some way. Objectives are divided sometimes into two categories, general and specific; in other cases, they are expressed only as specific statements.

Many teachers and trainers plan their teaching in terms of what they will do themselves. The most important point to remember is that objectives are to be written in terms of what the student will be able to do after a period of learning has taken place. This requires a shift in emphasis from what the teacher/trainer will do to what the student(s) will do. Grasping this idea is the key to writing objectives.

When preparing specific objectives, curriculum developers should try to ensure that the objectives:

- are written in terms of the student, i.e. what the student will be able to do after instruction;
- identify the desired behaviour by name and specify observable behaviour (it must be possible to assess the activity in some way). This behaviour will relate to either knowledge, skills or attitudes;
- state the conditions or restrictions under which the desired behaviour will occur;
- include a criterion or performance standard which the student must achieve to be considered acceptable.

For example: *By the end of the session, the student will be able to write behavioural objectives for a course in agriculture to the required degree of specificity.*

So, when writing objectives, there are several steps to consider:

1) **determine the behavioural change:** in order for the objective to be achieved, some change in the student's behaviour must take place. In order to assess that this has occurred, it is necessary to have evidence. This is done by including a verb in the objective, i.e. a statement of what the student will be able to **do** after the period of learning. Some words are better than others for the construction of objectives, e.g. **solve, define, identify, recognise, list, enumerate, construct, state, explain, or select.** Certain verbs should be avoided if possible, such as **know, understand, enjoy, believe, or appreciate.**

2) **define any conditions** under which the behaviour will be expected to occur (e.g. length of time, etc.); and

3) **specify criteria** of acceptable performance.

Consider an example of an objective which states that a student should be able to construct poultry house. Is this an acceptable objective as it stands?

i) Behaviour: what do we expect the student to do? To “know how” to construct a poultry house or actually to carry out the construction? Let us assume that we expect students to perform the activity of construction - this is assessable.

ii Setting conditions: it is necessary to state clearly under what conditions the objective is to be achieved. If we were to say that the student “should be able to construct a poultry house”, how long would he or she need to complete the activity? A month? A year?

We can make this measurable by stating, “by the end of the course, the student should be able to construct a poultry house within a set period”.

iii) Meeting criteria: we need to ask some other questions about the task to be completed. How big should the house be? How many chickens should it hold? Is it for chickens or for some other kind of poultry? What materials should the house be constructed of? How much space should be available to each bird? And of course it should be well constructed, stable and firm and durable, capable of withstanding bad weather.

Evidently, we must specify the criteria to be met; e.g. the house should be well built of wood and thatch to house 50 layer hens.

Our final objective could be, therefore:

By the end of the course, the students will be able to construct within a set period a well- built poultry house of wood and thatch to hold 50 layer hens, allowing the recommended space per bird.

A useful, short-hand way of remembering that objectives should be written according to the above approach is to think of “SMART” objectives. This means that objectives should be:

S= specific

M = measurable

A = attainable

R = realistic

T = time-bound.

d) The Limitations of Objectives: Specific objectives are most helpful when dealing with areas of knowledge and skill, since there are many ways in which the development of knowledge and understanding and the acquisition of skills can be assessed and evaluated. The development of attitudes is more difficult to measure, however, mainly because there is a much greater degree of subjectivity involved on the part of both students and teachers. This means that, useful as objectives are, they may encourage teachers to look upon a group of students as homogeneous. The use of objectives should not lead to the suppression of the individuality of students in the way they approach their learning, or ignore the diversity of experience that they possess. Nor should it limit an appreciation of what can be learned to those elements which can be predicted, some of the most important learning of students is unforeseen.

You may care to consider the following questions at this stage of our study:

Activity Box No 30

What are the learning objectives you want the students to achieve in terms of :

- the knowledge they should know:

- the skills they will need to develop:

- the attitudes you would wish them to foster?

1.2 Selecting the Learning Objectives

a) Increased range of material in the curriculum: One of the things which emerge from the experience of working with participatory approaches to curriculum development is that the viewpoints held by various groups of stakeholders are often very different. A moment's thought will indicate that this is understandable. What a Ministry of Agriculture wants students to learn will not always be the same as what employers or farmers will wish to see from the student graduates. One set of stakeholders will expect students to accept without questioning an agreed body of knowledge, so that they can pass this on to others without errors as they need it. Other stakeholders will hope that the students will become 'problem posers' - people who question things, who challenge what they see around them, who want to change society, innovators and creators who experiment and try things out, even if in the process they make mistakes.

There are many reasons for this divergence of views, but one stands out above all the rest. Some of the stakeholders will be concerned, not so much with their own needs, but with the needs of some other groups as they perceive them. Thus the staff of many agricultural colleges try to assess what the farmers need, and build their curriculum on this assessment. But experience shows that outsiders often get their assessment of the needs of others wrong, and this will mean that the curriculum will also be wrong. That is one of the justifications of PCD. We need to ask the farmers and other interested groups themselves what their needs are, rather than make judgements for them.

Some examples will indicate this.

Key Point 8a

Example 1

In Namibia, the use of PCD methods was very revealing. Different groups of agricultural extension workers had been appointed and trained under different governmental regimes for each of the homelands which had been created under the previous regime. After independence, a decision was taken to develop this force into a united national service, and a new in-service training programme was developed to upgrade the existing staff using PCD approaches.

One thing which emerged from the discussions with the trainees (the already serving agricultural extension workers) was that they wished to have some part of their training programme devoted to developing their understanding of how organisations worked - how their own agricultural service was functioning, how horizontal and vertical relationships within the service operated, how they could manage change. Nothing of this appeared on the schedules produced by any of the other groups consulted - farmers, college staff and Ministry officials. None of these other stakeholders saw any need for such an area of study to be included in the training programme. But it was a high priority for the extension field staff and their supervisors.

Key Point 8b

Example 2

A second example of different agendas became clear from the environmental education curriculum developed in Jamaica. This time it was more predictable. The curriculum elements which the environmental NGOs (the special interest groups and the pressure groups) who were consulted wished to have included were much wider and more radical than those that most of the college staff and many of the students felt were needed. Global issues, processes of bringing about change, concerns of the moment all competed with the more local, more scientific and detached, less political areas which other stakeholders felt ought to form the basis of the curriculum.

b) The overloaded curriculum: The fact that the PCD process throws up more in the way of study material than there will ever be room for within the training programme creates the main problem of using this method. This will be true in all three curriculum areas - knowledge, skills and attitudes. Difficult choices will be forced onto the curriculum developers. This may be one reason why participatory approaches to curriculum development are not used more widely.

We need to face this problem. Those who develop a curriculum without using a PCD approach face the question of making choices about what to include and what to omit; but this fact becomes more acute when involving other stakeholders in the process. However, if PCD has advantages, then we do not wish to lose these because of the increased problem of having to choose between alternatives. It will be useful to look at each of the three areas, to see the overcrowding which arises from wide involvement, and to try to determine what can be done about it.

c) Choosing between different requirements of the stakeholders

i) Selecting Knowledge Objectives

The main area in which the overcrowding will come about will be in the content of the course, the knowledge base which different groups of stakeholders will feel is necessary.

It is surprising how heated debates over subject matter can be. Different staff members will argue at length for a set amount of knowledge from their field of specialisation to be contained in the curriculum. Outside of the college staff; other groups will suggest, often with as much fervour as the staff that different areas of knowledge are essential. We all know the difficulty of incorporating new subjects into an existing curriculum. We have all heard the plaintive question, "if we are to include some lectures on this or that subject, what shall we drop?" Yet new knowledge is being created all the time. The mathematics curriculum in the schools and colleges of today is very different from the mathematics curriculum of only a few years ago. All the sciences (including agriculture) have changed dramatically in the last generation. Apart from the results of detailed research, whole new subject areas like design and technology, information technology and computers, as well as personal and social skills, have had to be added to the subjects studied at school. Colleges too are not exempt from this sort of pressure. Agricultural training, for example, has witnessed strong demands for the inclusion of new subjects such as bio-technology, farming systems, agro-ecology, forestry etc

into an already crowded timetable, so that there is a sense of competition with more traditional areas of study. The reason for most of the current interest in curriculum development in the colleges is the pressure to incorporate new subjects into the college programme.

Difficult choices are however part of the task of teaching and of designing and planning for teaching and training. PCD will not make this part of the work of curriculum development any easier. It will in fact make it more difficult. All the stakeholders will add to the list of subjects to be studied - the case studies given above show this. What is more, as we have seen above, some of the stakeholders will hold strong views as to what the students **must** know, **should** know, or **could** know.

The result is inevitable: PCD will result in there being far too much to be included in the time available. It will be impossible to cover everything.

But in another sense, the fact that there is clearly too much material for any course curriculum actually makes the task easier. For after engaging in PCD, it will be clear to everyone that everything cannot be put in. Some material will have to be selected and some omitted; sacrifices will have to be made.

Here, all sorts of different value systems come into operation. As we have already seen, some people feel that pure science is superior to applied science, because it will enable the student to work out a variety of different problems from a common base of knowledge. Others feel that there should be an increased emphasis on 'really useful' subjects, on practical and relevant information. So how can the curriculum developer determine the areas of knowledge which should be included within the curriculum and which should be left out?

Two general points need to be made. The first is that curriculum developers are rarely in a position of making an absolutely free choice. Most are in fact revising an existing curriculum. They have inherited a good deal from the past. Even when they do have a chance to create something from the start, then their own training and experience will tend to dictate the areas of study and the kinds of activities which they will feel are important. Such considerations need to be examined carefully before making a final selection.

The second issue is whether they are able to undertake a fully participatory activity - whether they can encourage the stakeholders not just to provide their views about what should be included in the curriculum, but also to encourage them to help decide on these issues. The circumstances in which the curriculum is being developed will mean that it will be easier for some people to engage in a fuller process of PCD than for others.

Certainly, in deciding which areas to include and which must be left out, the curriculum development group will be influenced by a hierarchy of values. Some members of the group will tend to give greater weight to the opinions of some of the stakeholders than to others. They may be influenced by the fact that certain areas are advocated by only one or two of the stakeholders while other areas will appear on everyone's lists. Once again, they need to be clear about the criteria which will be used to determine what will go in and what will go out.

One key element in this discussion is the need to promote the ability and willingness of our students to engage in future learning and not to think that learning comes to an end when they leave college or school (see Key Point 9: Future Learning).

Implications of Lifelong Learning for the Curriculum: Several issues in relation to the curriculum (and of course to teaching the curriculum) follow from this.

a) Qualified but not fully trained: No student should ever be given the impression that when they have completed their course, they have learned all that they need to know for the rest of

their professional lives. The process of awarding certificates at the end of courses unfortunately often leads students (and their employers and even more their parents) to think that because they are qualified, they know all that there is to know. They are not encouraged by such a certificate to continue to study, to learn purposefully, to plan their own learning, their own growth into increased knowledge and wisdom. No one has yet come up with a solution to this problem; and the expansion of certification into areas which traditionally did not have it is not helping to promote lifelong learning. But passing an examination and obtaining a certificate is a stage in a process of development - an important stage, but still only one stage of many.

Key Point 9 Future Learning

It is now recognised throughout the world that learning is a lifelong process, although the implications of this oft-repeated statement are not always so clearly recognised. Training programmes, therefore, need to help students to develop the skills and habits of lifelong learning.

There are four main reasons for this:

a) It is impossible for any student today to learn all the public knowledge available and expected of them during any training course. There is just too much to know and not enough time in any course to learn it all. Much will have to be left to be learned after the end of the programme.

b) No-one can foresee what an active practitioner will require throughout a lifetime of work. The requirements for a career lasting perhaps for thirty or more years cannot be foretold in advance. So the practitioner will need to learn a great deal while in work, even if the job itself were not to change.

c) Thirdly, the rate of progress with new areas of knowledge is dauntingly fast. Computers designed today will be out-of-date in five year's time. New technologies (especially the information technologies) will change our lives dramatically over the next few years. Even older people today can look forward to great advances in knowledge and techniques which will materially affect the rest of their lives, a fact which some people find exciting and others dismaying. New learning to meet these changes will be required of all of us.

d) A further reason why students will need to do much learning after they have completed their courses is that much of the knowledge they will learn at college will remain in the area of theory, detached from reality, until the moment they need to use it in real life. However much the trainer tries to use real case studies, however much practical work is provided, however much role play and other forms of practical exercises are used, the significance of much of what the students will learn during their courses will only become clear when they face some situation in real life after college. It is when they put it into action that they will learn the subject properly. They will then learn more about the subject through practice after they have completed their course.

The conclusion then is that the students will do most of their learning after they leave the care and attention of their teachers.

b) Sampling areas of study: A second conclusion from this discussion is that the choice of subjects to be included within a curriculum should be based not so much on a concept of 'public knowledge' - what others expect a graduate to know - but on the representative nature of the area of knowledge. How far will the study of this or that subject open new doors, introduce new ideas and concepts? How far will it encourage continued study? How far will it demonstrate methods of approach or ranges of sources? How far can it be used by the student to build on it to develop new areas of learning?

c) Depth versus wide scale: Some areas of study can best be tackled through a scanning approach, an overview, leaving the student to go into more depth later as and when required. Other areas may be handled through one or two detailed case studies, leaving all the rest for the student to deal with subsequently. It is best to accept the idea that no subject can ever be taught exhaustively. It is for the teacher to tell the students that they are simply opening doors, introducing them to new fields to be explored, new issues to be handled, new sources to be utilised.

This will mean that, to a large extent (especially where the curriculum developer is also the teacher), the enthusiasm of the teacher can be given adequate play. Most people teach best from within their own special interests. A large part of the art of teaching is the sharing of enthusiasms. We can all remember those teachers who enthused us by their own keenness for the subjects they taught. But a balance will need to be kept. The choice of subjects should be balanced between the different fields of studies which make up the discipline being studied.

An example will help to illustrate this. In a recent debate over the development of a new university curriculum in biology, the Professor and Head of Department tried to insist that more and more areas of biology should be included. He advocated extending the hours of teaching so that the new subjects could be treated adequately. "I cannot have a graduate in biology going out of this college without knowing about..." and he listed a large number of subjects. One of his lecturers who disagreed with him profoundly and who had argued unsuccessfully for a less didactic and more practical approach to the teaching of biology eventually decided to take action. He pinned a note on the professor's door reading, "I want my students to KNOW Biology"; and he pinned a notice on his own door reading: "I want my students to LIKE Biology". The professor felt that all the learning would be done during the programme, while the lecturer planned his course so as to promote more learning throughout the rest of the students' lives. This debate between whether the aim of a course or programme is to help the students to know about a subject or to come to like it and to carry on studying it can be seen in every subject, including agriculture.

d) 'Learning' more than 'teaching': One of the results of an approach to the curriculum which stresses that this or that subject needs to be included is that it tends to lead to more teaching and less learning. The teacher feels that he or she must cover this topic and that topic, even if the students cannot always 'keep up' with the teacher. How often is the statement heard in class: "I cannot deal with that question now: I must get on". The pressure of examinations often leads the teacher to rush along, to try to deal with everything before the date of the examination arrives. But there is no value in the teacher teaching if the students are not learning. That wastes everybody's time. Much more important is that the students work things out for themselves rather than that the teacher tells them everything, even if this means they do not cover the whole field.

The emphasis of the curriculum then should be on what things the students need to do to learn new knowledge and new understandings, rather than on what the teacher needs to do.

e) Learning how to learn: A fourth conclusion follows from this. The students need to be encouraged to become aware of how they learn. We have already seen that all students have different learning styles. Each student should be helped to try to identify and develop further the ways by which they learn best. They should be provided with Opportunities to learn how to learn more, and more purposefully, as the course develops. Most teachers in college discuss with their students what they have learned, but they rarely discuss with them how they learned it. When essays or reports are handed back, for example, the content and the style of the essays are usually discussed with the students, but not the process - 'how did you go about it? Yet if teachers are to encourage students to continue to learn purposefully after the end of their courses - not least because teachers cannot teach them everything they will need for their job - then the teachers need to help the students to see for themselves how they go about the process of studying, how they write notes, how they design essays, etc. In particular, pieces of written work are usually seen as a test of knowledge rather than an opportunity to practise the skills of learning. Perhaps students should be encouraged to rewrite some of their essays, for it is practice which will help them to learn, not just a once-and exercise of memory.

Space then will need to be made in the curriculum for developing the skills of learning with the students. The main aim in this part of the curriculum is not just to fill the students' heads with knowledge, but to help them to search for knowledge for themselves. Some students, as we have seen, will be very good at memorising facts and repeating them. Those who do not possess this ability can be helped to develop their skills of gaining knowledge in a variety of other ways than simply memorising it.

Conclusion

The conclusion to this discussion is that when faced with an overlarge amount of subject matter to be included in any curriculum, which will inevitably happen when PCD methods are used, the curriculum developers should not try to include too much. Rather, sample areas of study should be selected which will illustrate how the subject should be studied. The curriculum should be designed so as to make sure that the students understand that they have only begun the process of becoming an agriculturalist. They need to come to feel that the course is only an induction, that it is starting a process, not finishing one.

Teachers will only do this, however, if they are themselves continuing to work at their own subject, if they are learning new things, engaging in self-directed study. No one can teach effectively unless they are themselves a learner. The best teacher is a learning teacher. No lecturer knows everything there is to know about his or her subject; indeed, no lecturer knows as much about the subject as they need to know. We all have more which we must learn. Your use of this guide is an example of one way in which you can develop your own professional further.

Activity Box No 31 a

Look again at the learning objectives which you wrote at earlier in this chapter (Activity Box 30, page 93). In terms of knowledge, would you now wish to change these?

What provision is there in your existing courses for the students to learn how to learn? Describe how you could include this more effectively into your curriculum.

ii) Selecting Skills Objectives

We need to remind ourselves that we are dealing here with a wide range of skills, including physical (or motor) skills and mental skills - the ability to do things and the ability to think things.

Much the same considerations apply to the area of skills as to knowledge. But the experience of our case studies from Namibia and Jamaica suggests that there will be less competition among the stakeholders for space in the curriculum. It is likely that there will be greater agreement among the stakeholders and less overcrowding of the curriculum in the area of skills development.

Nevertheless, the same kind of problems will emerge from the long list of skill learning objectives compiled from the views expressed by the various stakeholders.

Key Point 10 Skills

Which skills need to be concentrated on? Once again, there will not be enough time to help the students to develop all the skills they will need for their jobs. Should the teachers attempt a superficial coverage of all the skills or concentrate on one or two?

How far can these skills be developed within the context of the course? How much will need to be developed in the field once the students have left the course?

How can the students be helped to transfer their newly developed skills into practice once they have left the artificial atmosphere of the course?

How can the teacher encourage the students to continue to learn new skills, which have not been tried out during the course? This will probably be more difficult than encouraging them to learn new knowledge from books, journals and magazines after the end of the course.

How are skills learned? The usual way in which skills are learned in education and training programmes is through demonstrations. The teacher however needs to remember, as we noted above, that the students will learn as much from the way they are taught as from the content of the teaching. It is from the way the teacher teaches that the students will learn most of their skills of communicating with others. More formally, role play and simulations are important for the exercise of skills, but the real learning will come about only when the students are placed in situations where they need to develop and use their skills for the completion of some task rather than simply practice them under controlled circumstances. A practicum, attachments, placements, internships and other forms of 'real' practical work will all help the students to develop skills while being supervised.

The choice of which strategies to use to develop skills is part of the process of curriculum development. The development of the curriculum is not only the work of the planners before the course begins; it is also the work of the classroom teacher who interprets and implements the course programme.

The most important thing in relation to the curriculum for skill development is the need for plenty of opportunities, space and time for practice. Students need to try again and again in order to advance in their skills, a process which will of course continue after they have finished the course and are using the skills in their chosen vocations. Like knowledge, the key question for skill development is not what the students shall be taught but what they should be asked to do in order to learn the required skills? Practice, followed by critical reflection, followed by further practice is the way in which skills are developed.

And critical reflection on experience, like other mental skills, needs to be practised again and again if the students are to become proficient in it. Students should be helped consciously to

reflect critically on what they are doing and to devise and implement ways of improving their own skills.

Skills of learning: The promotion of the skills needed to engage in self-development has normally been left more or less to chance. In large part, this is because the main emphasis of traditional educational institutions has been placed on the transfer of knowledge rather than on the promotion of critical reflection on experience which (as we have seen above) is the main process involved in continuing personal growth. But there are skills of learning which can be developed further. Many of the open universities which are being established throughout the world are finding that the first demands from the students and the first requirement for their programmes are courses on study skills.

It is strange that in most formal educational establishments, the development of the skills of leaning tend to be neglected. The skills of reading and of summarising arguments, of creating patterns of knowledge to assist memorising, of structuring and writing down material, of developing effective note-taking processes, of thinking in a systematic way, of calculating, of examining experience, of testing new information against existing strongly held views - all these and many other strategies for learning effectively need to be developed just as surely as the skills of farming or the skills of teaching etc. They will call for systematic and repeated practice.

Throughout the skill development process, there will be a need for careful monitoring and, above all, continuing support. Much monitoring is designed to correct the students; it is based on criticism. But what students will need more than criticism will be support and assistance. In order to develop skills, the students will need to increase their confidence. This can in most cases only be done if they are made to feel good, not bad, about their work. All this will be part of the curriculum.

iii) Selecting Attitudes in the Curriculum

Using PCD methods will mean that the curriculum developers will collect from the various stakeholders a wide range of different attitudes which should arise from the curriculum. The reason for this diversity will be their different viewpoints. As we have already seen (page 93), there is a fundamental difference between those persons who will want to encourage the students to fit into society and into an organisation, and those who will want to help them to become persons who will innovate, who will seek to change society and organisations.

Attitudes are developed slowly and rather uncertainly. Changed attitudes come from the way things are done more than from detected teaching. They tend to come most from group interaction.

Attitudes towards self-development: We have suggested above (Key Point 9 page, 97) that one of the most important elements in any curriculum is to help students to continue to develop themselves after they leave the course. This will mean, not just encouraging the development of the skills of self-detected learning, but also helping them to become:

- more and more committed to their own self development;
- more and more confident, having experienced sufficient success in this area to encourage them to make further efforts; and
- more and more innovative, creative, open to new ideas, constructive and experimental, prepared to take risks, etc.

Opportunities for developing such attitudes will need to form part of the curriculum.

One of the most effective ways of developing positive attitudes is through active learning groups - sub-sets which have been given tasks and encouraged to develop the freedom and responsibility to undertake such tasks for themselves, and to make their own judgements as to their success or otherwise. Participatory forms of pedagogy are one of the most effective ways of building up confidence and enthusiasm. Treating students as professionals will help and encourage them to develop professional attitudes.

The teaching staff of the college or institution will need to serve as a role model in this respect. The students will only become more committed, confident, innovative, experimental, open to new ideas if they see in their teachers these same attitudes.

Activity Box No 31b

Looking back again at the objectives you wrote earlier (Activity Box 30, page 93), do you wish to change or add to the list of **skills** you have set for your own curriculum or programme of study?

vi) Encouraging Behavioural Changes

The ultimate aim of the curriculum is to encourage behavioural changes. As we have seen above (pages 5 1-54), it is often assumed that if the students know enough and have developed enough of the skills to act in a certain way, they will do whatever has been taught to them. But transfer from learning programmes into behavioural changes is not always automatic. Other barriers may come between the learning programmes and the implementation of behavioural changes (see above page 5 6/57). Most of these are external to the training programme. For example, as we saw earlier, a programme teaching about fertilisers may be rendered ineffective, even though the trainees may be highly knowledgeable, highly skilful, and highly motivated and confident about the most appropriate ways to use fertilisers, if the supply of fertilisers is not adequate or out of season. The curriculum should try to identify as many of these barriers as possible, and seek to help the students to devise ways of counteracting them. This is one part of the curriculum development process where the contribution of the stakeholders will be particularly valuable.

1.3 Balancing the Objectives

Faced with such wide-ranging requests for different learning objectives, contents and processes to go into our curriculum, for which there will be limited time, teaching and training resources and materials, the question arises: How can a balance between all these different areas be created? A process of selection will be necessary.

Perhaps the key issue we need to face here is, whose goals will predominate in our programmes? Will they be those of the educationalists or those of the other stakeholders or those of the students? Is it possible to achieve a balance in this? The discussion in chapter 1 about the contribution and role of the different stakeholders highlighted some of the difficulties here.

Equally, it is important to keep the curriculum flexible. New needs will emerge, and student requirements will change as the course progresses. One solution is to offer the students different courses through the use of options or modules to meet their individual needs and preferences. This has clear curriculum implications, particularly in terms of drawing up timetables, managing and allocating resources, the type of guidance given to students, etc.

Activity Box No 31d

Finally, looking again at the objectives you wrote earlier (page 93), can you identify some of the external barriers to behavioural learning which your existing course seeks to address? If not, can you list some of these which should be dealt with in the curriculum?

1.4 Conclusion

It will be useful to summarise the stages in a stakeholder development of a curriculum which have been identified. The following would seem to be the steps to be followed:

- to collect from the stakeholders lists of learning objectives in the areas of knowledge, skills, and attitudes;
- to amalgamate these lists of learning objectives; and
- to select from them those objectives which shall be included in the curriculum taking into account the time and resources available, and those which can be left for other times and other programmes.

Once this has been done, it will be possible to begin the task of working out the kind of educational and training activities and the kind of context needed to develop these KSA objectives. This is the theme of the next part of this chapter.

CHAPTER IV: CREATING THE CURRICULUM

Part 2: TRANSLATING OBJECTIVES INTO CURRICULUM ACTIVITIES

Once the learning objectives have been determined, some people think that the curriculum is ready for use. Some curriculum developers leave the detailed implementation to the teachers or trainers, since “they know best”. In particular, most of the outsider stakeholders will tend to feel that their task is done. In fact however, implementation is just as much an integral part of curriculum development as is the setting of objectives. As we have already seen, the methods used in our teaching- learning programmes cannot be separated from the content or the objectives.

Furthermore, it is during the implementation phase of curriculum development that the process often breaks down. For this reason, we need to pay special attention to implementation.

In this and the following chapter, we will consider two issues which are actually complementary and interdependent:

- planning for implementation; and
- managing the implementation process.

2.1 Planning for Implementation

When considering how the curriculum is implemented, it is important to start by looking at different ways of organising the delivery of a course.

Everyone who is involved in teaching and learning must be a manager as well. In order to teach and facilitate learning, it is necessary to make many decisions. Likewise, anyone who works in a training organisation, even though they may not actually teach, will make decisions which will have an impact on teaching and learning in that organisation.

There are two main aspects to this process of management in relation to the curriculum:

- a) choosing the content and methods, and
- b) organising the activities.

Both of these need to be shared as far as possible with other stakeholders, especially the students.

a) Choosing the content: Several writers on education and the curriculum (e.g. Davies 1971) have noted that there is a tendency for teachers and trainers to concentrate on decisions about **teaching** and not about **learning**. Teachers and trainers think more about what they are required to do than about what the learners should do, or the experiences which should be provided in order to facilitate learning. Some teachers decide that the best way to manage learning is to talk continuously, students like empty buckets.

But as we have already seen above,

- students learn for themselves teachers cannot learn for them;
- students learn at their own rates, in their own ways; and
- accepting responsibility for their own learning motivates students to learn:

This means that the decisions which the teacher-manager take relate as much to learner activities as to teacher activities.

Flexibility of the content: One of the reasons why some curricula fail is that the implementation structures and the modes of delivery of the curriculum are too rigid. Incorporating an element of flexibility into the structure of the curriculum can often solve problems. Techniques such as modularisation or the use of a ‘menu’ of options can provide some flexibility. By providing choice in the type of training available, students can be enabled to make active decisions about the way they wish to continue and direct their own learning. Guidance and support for individual students will also be very important during this process.

b) Organising the content: In order to facilitate learning, the student activities and experiences must be well organised. This is usually carried out by the implementers of the curriculum the teachers. Ideally, the students should be involved in this process through the development of learning ‘contracts’. However, it is often necessary to carry out forward planning, since resources need to be acquired in advance.

Sequencing the content and activities: Although the curriculum must be flexible enough to allow the students’ views about its implementation to be taken into consideration and catered for, nevertheless there is a responsibility laid on the teacher to sequence the material so as to make it meaningful and to assist learning. This is the construction of the syllabus.

The following are some of the general guidelines which you may find useful when sequencing the content of the curriculum:

Balancing the content, methods and materials for education and training courses: The new curriculum needs to maintain a balance between the different elements of the curriculum, the content, the methods and the materials. In each case, there is a decision to be made. It is not a foregone conclusion that one set of contents, methods or materials should be used to the exclusion of others. Such decisions are part of the process of curriculum development.

Key Point No 11 Sequencing the Content of the Curriculum

- Students tend to move more comfortably:
 - from the known to the unknown;
 - from the simple to the more complex;
 - from the concrete to the more abstract; and
 - from real experience to constructed experience.
- Students will find it easier if the curriculum uses an existing logical organisation. This may be chronological (when there is a sensible sequence based on the times at which activities are carried out), topical (topics are taught to coincide with events taking place in the external environment) or dependent on learning styles (the learners may have a preference for a certain sequence, based on the way they think that they can learn most effectively).
- Students will follow any activity more readily if it is covered in the order of job performance.

c) Scheme of work: The most common way to organise the delivery of the curriculum is to draw up a scheme of work. This is the sequencing of the topics and activities in a series of 'lessons' or class sessions. This is very useful as an aid to planning.

A scheme of work developed by a teacher can complement the written curriculum. The curriculum will not replace it, since it must by nature be interpreted, adapted and implemented locally. This is the role of the teacher-trainer. It is therefore important that teachers should be included among the stakeholders in the process of PCD.

The scheme of work cannot be laid down inflexibly by some external body because of the variation between the environments of different educational institutions. It is important to plan training in agricultural programmes during those seasons of the year when specific agricultural tasks can be undertaken and at times which will allow participants to attend without having an adverse effect on their normal working lives. In these cases, it will not always be possible to involve the students in much planning. The teaching of practical subjects in agriculture needs to be adapted to the local climate, cropping times, types of crops and livestock, and the various opportunities and facilities for practical work, etc.

As Bachmann, writing about developing countries, has observed,

Agricultural training at all levels should be geared to solving local problems, and therefore has to be adjusted to the local conditions under which agricultural activities take place. Not only the physical environment but also the human environment has to be taken into consideration. Agriculture, being both the basis of existence of the population and the basis of its culture, is strictly linked to local traditions and local standards of value (Bachmann 1983).

Only a local teaching institution and/or local teacher can arrange the programme of its courses in such a way as to enable an appropriate blend of practical and theoretical work to be carried out. Similarly, in non-formal educational programmes, the timing of training programmes and extension activities will depend on local factors more than on a set curriculum.

The place of experience in the curriculum: This raises the question of the primacy of experience in learning. This is an area of some debate among educationalists. Most educational systems prefer to teach theory first and then to provide experiential learning to apply this theory. Textbooks on crops are read before going into the field; a manual on tractor maintenance may be read before students even see a tractor. (This guide may be read before any curriculum development is carried out!) Because head knowledge is valued more highly than practical knowledge in most educational and training systems, it is thought necessary for the students to learn theory first.

But another approach is to provide the experience first, and then subsequently in the classroom to reflect on what the experience implies. This, it is argued, will make the textbook material and the laboratory work more meaningful and will motivate the students to learn more effectively. Students will search for information in relation to what they have seen far more readily than accept information about what they have never seen.

Perhaps the ideal approach - if time allows - is to undertake experiential learning first, then to reflect critically on it with new inputs, and then to apply the new insights and knowledge in a further experience.

Key Point 12 Drawing up the scheme of work

Drawing up the scheme of work can be done in a participatory way, involving as many stakeholders as possible. Three main considerations will need to be kept in mind when designing the scheme of work:

i) The content of the sessions needs to be sequenced systematically, so that the order of the topics makes sense. This will facilitate learning.

ii) The sequencing of the teaching and learning activities will depend partly on local conditions and partly on the needs of the particular group of students the course is dealing with. Through discussion with as many stakeholders as possible, those parts of the curriculum which best suit the needs of the students at any one time can be selected and implemented.

iii) Many objectives and activities in agricultural education and training are concerned with practical work. Students are not only expected to know but also to do. It is important to alternate practical action with structured reflection. A balance between the real world and academic study helps the students to relate thought to action and to appreciate the strengths and weaknesses of theoretical ideas. Some writers have suggested that as much as three-quarters and (at the very least) a minimum of a half of total teaching time should be spent outside the classroom. The classroom teaching- learning programme should therefore be planned around the practical activities as far as possible, rather than the other way around.

Activity Box No 32

What is the relationship between practical work and classroom teaching in your existing courses?

How would you like to see this relationship changed?

At the root of this discussion is the earlier discussion on whether education and training is fundamentally a matter of the students being told something which they need to memorise, or whether it is for them to work things out for themselves. The teacher will need to make up his/her mind on this - in consultation, if possible, with other stakeholders.

d) Selecting Methods and Materials: Some of the decisions relating to the scheme of work will be influenced by the materials available and the methods chosen. These methods and materials require choice on the part of the curriculum developer, the educational and training institution, and/or the teacher-trainer.

You might care to consider the following questions at this point:

Activity Box No 33

What methods have you experienced or used in your education and training programmes. How do you think they were chosen?

What factors will determine which methods are used in teaching/training?

Methods: The first decision which any teacher-trainer needs to make within the context of a curriculum is how much and what kind of things the teacher will do, and how much and what kind of things the students can be expected to do. It is very common in all forms of education and training to find teachers standing in front of a black/white board or overhead projector or even in a field, talking to/at the student participants.

Most teacher-trainers tend to use the same methods in their programmes as they experienced when they were themselves students. Most of them assume that these are the 'normal' or 'right' methods, that there is no choice. They do not feel confident enough to challenge these methods or to explore the use of other approaches.

But there many different teaching-learning methodologies which are available to any teacher-trainer and which need to be allowed for in the curriculum. Choice is essential. In fact, teachers are making choices, even though they do not realise it, when they use only a limited range of teaching-learning methods.

Key Point 13 Methods for Teaching and Learning

Following on from the earlier discussion on the different styles of learning (pages 61- 62.), four main categories of teaching-learning methods have been identified:

- Discovery methods - by which the students are encouraged to explore, to search for knowledge, to try out skills for themselves, and to learn from these experiences (projects, surveys, independent study, field visits, reading, etc)
- Participatory methods - by which the students in groups share opinions and insights, and learn from each other (group work, discussions, debates, seminars, brainstorming, games, etc)
- Presentation methods - by which the teacher-trainer or students make a structured presentation (lecture, demonstration, films, videos, etc.)
- Application (sometimes also called evaluatory) methods - by which the students apply and test out what they have learned, and provide feedback to the teacher-trainer (exercises, problems, practicals, essays, attachments, role play, simulations)

(Rogers 1992)

Since people have preferred learning styles, they will tend to find it easier to learn through one or other of these methods. Some people prefer a lecture or demonstration; others prefer to work things out for themselves. Some prefer theory, others practical work. It is therefore important that the programme should include different teaching-learning methods rather than rely on one or two. The aim is to help as many students as possible to learn in the easiest and most effective way, and that will mean adapting the methods to the student, not the students to the methods. The teacher needs to consider - when making the choice of methods - the student needs and capabilities, their experience and their expectations, what they are willing or feel confident enough to do.

Activity Box No 34

Try to list here as many different teaching methods you can think of. We have indicated some above, but you may know of others which you have tried or have seen others use more methods you have in your “toolkit” for learning, the better!

The more involved the students become in their own learning, the more likely they are to learn effectively. Learning, as we have seen, is a participative process where the role of the teacher-trainer is facilitation, not indoctrination.

These decisions will to a large extent be influenced by the time and the resources available. There is no point in choosing a method which cannot be implemented because of lack of facilities.

Materials for learning in teaching and training programmes: The curriculum will not normally include much about the teaching materials which will be needed, but it will assume a good deal about them. The choice of a particular subject or skill will inevitably carry with it implications about materials.

Activity Box No 35

You will find it helpful to examine more closely what kind of materials you have available. List here some of the different materials which are already in use in your courses.

The choice and mobilisation of teaching-learning materials are part of the functions of implementing and managing the curriculum. Once again, it is a matter of choice. Sometimes the choice is made for the teacher-trainer by the institution; at other times, the choice will be more open to the teacher.

As with methods, the influence of inherited approaches to teaching will often mean that teacher-trainers tend to use existing materials which are easily available to them rather than go to the trouble of searching for new, more appropriate materials. When developing a new curriculum, there will be a need to identify and in some cases create new teaching-learning materials to go with the new course.

Educational materials must be culturally appropriate to the students. It may seem odd to stress this. But with the globalisation of education and training, there is a tendency for teaching institutions to take up materials which have been prepared and used in one country and transfer them with the minimum of adaptation to quite different cultural contexts. This is especially true of distance education, where courses devised in one country are sometimes sold to other countries as complete packages. This is not the best way to promote learning.

Other aspects of teaching-learning materials which will need to be considered are that they should be attractive, interesting to the learners (not just to the teachers), challenging, economically viable to produce, and well organised in terms of the content.

A distinction can be drawn between, on the one hand, 'special' materials, those which have been written and produced specifically to promote learning (textbooks, charts, articles in journals collections of case studies, etc.) and on the other hand, 'real' or 'ordinary' materials, those which already exist in the local community, many of them having been written and produced not specifically for learning, although they can be used for this purpose (local reports, magazines and journals, newspaper items, the environment itself; etc.). It is important to use some 'real' materials so that the students can become accustomed to working with these materials and continue to use them after the course has ended. For such materials will

generally be readily accessible and produced continuously, while many students will never look at another textbook after they leave the course.

Identifying the range of teaching-learning materials available will be greatly enhanced if the stakeholders can be involved in this task. Stakeholders will see useful resources where the teacher cannot see them. They will know of local sources of materials, and they may be able to point out new ways of using existing materials more effectively. PCD is one of the ways in which those who are engaged in any part of the education and training field can learn more about their task. It is part of their own self- development, learning from others who have an interest in their work.

It is not the task of this guide to discuss in detail the steps to be taken into consideration when developing new teaching-learning materials. These are considered elsewhere (FAO 1990). The main concern here is to indicate that when implementing the curriculum, the teacher-trainer will need to consider not only the content and its sequencing but also the methods to be employed and the materials to be used, in order most effectively to fulfil the learning objectives.

Conclusion

So far in this chapter, we have looked at how learning objectives can be determined, and how they can be translated into the curriculum. This process is complicated, and unless we have some means of encouraging the stakeholders to ask questions about what has been done and to give their opinions about the - development of the curriculum, we still run a danger of not taking their views into consideration.

For this reason, we shall turn, in the next part of this chapter, to the issue of evaluation. courses.

CHAPTER IV: CREATING THE CURRICULUM

Part 3: PARTICIPATORY EVALUATION AND THE CURRICULUM

Evaluation is an essential part of any curriculum. It is often left until the end of the teaching-learning programme. But modern understandings of education and training stress that the modes of and criteria for evaluation need to be formulated very early in the process of curriculum development. The indicators of achievement looked for, and the ways in which information about these indicators is gathered, need to be established from the start. If they are to be successful, they cannot be ‘bolted on’ at a later stage.

This section then will look at

- the meaning of ‘evaluation’ and ‘assessment’;
- the purpose of evaluation;
- how far it can be done in a participatory way;
- the measures of success;
- the processes of assessment and evaluation;
- evaluation as research; and
- the value of evaluation.

Before we start, you may care to look again at what you wrote in column 2 of Activity Box 23a, and then try to answer the following questions in the context of evaluating your own teaching — learning programme.

3.1 The Meaning of Evaluation

Evaluation as applied to the curriculum, as its name suggests, examines the ‘values’ of the curriculum being used, including the content of the learning (‘what knowledge is worthwhile?’) and the aims (‘what should this programme of education and training be achieving?’). It is more than assessment, which measures the performance of individual students.

Evaluation attempts to look at what the curriculum is worth to those who are involved in its development, and how well it is working. The evaluation of training has been defined as:

an attempt to obtain information on the effects of a training programme, and to assess the value of the training in the light of that information. (Hamblin 1971)

Another definition of evaluation is:

a systematic process of collecting information for and about a training activity which can then be used for guiding decision making and for assessing the relevance and effectiveness of various training components. It is also used to determine the immediate impact of the activity. (Raab 1987)

Activity Box No 36

What is meant by evaluation?

What is assessment? How does it differ from evaluation?

Why is evaluation necessary?

Who should be involved in the evaluation process?

What kind of approach should we take to evaluation?

How is an evaluation undertaken?

How can we use the results of an evaluation?

Can you think of any other questions to ask about evaluation?

Evaluation is part of the process of the transformation of knowledge, skills and attitudes, which is education and training. There are two main focuses to evaluation. The first (Goal Achievement) asks whether the goals of the curriculum, the learning objectives, have been achieved, and what learning has taken place and how. The second (Impact) asks what did this has made to the learners and to their lives, their work and to their relationships to others.

In both cases, decisions need to be taken about how to come to conclusions on these matters. Evaluation will ask, how can learning changes be assessed? It will also ask, how can the impact of the programme be measured? The nature and results of the evaluation will depend on what questions are asked and what information is gathered and used for providing the answers to those questions.

Assessment.- We need to distinguish evaluation from assessment. As the dictionary suggests, the root origin of the word ‘assessment’ means “sitting beside someone”. In educational contexts, assessment has come to mean a process of measuring, of collecting data rather than valuing. Assessment tends to be quantitative, while evaluation is both quantitative and qualitative. Assessment provides the material on which the value judgements of evaluation can be based.

3.2 The Purpose of Evaluation

As we have seen, the aim of all education and training is the achievement of learning. Evaluation provides feedback to the educational planners, not only on whether learning is being achieved through the programmes (the curriculum) which they have designed, but also what kind of learning has been achieved and how relevant and how effective it is.

Summative and formative evaluation: Two main forms of evaluation have been distinguished, according to their purpose. One is called ‘**summative**’ evaluation: this is normally done at the end of any course and programme. The purpose is to sum up the effects of the programme, to list the final achievements, to see whether the curriculum has achieved the goals set for it and what other outcomes have resulted. The aim of this form of evaluation is to see how valuable the course has been to the participants, to the institution concerned and to the community in general.

Summative evaluation of 'goal achievement' is usually done soon after the end of the programme, since the information required needs to be elicited while it is still fresh in the minds of those involved. But evaluation of impact will need to be delayed, in order to allow enough time to pass so that the longer-term rather than the immediate effects can emerge. In particular, it will often need some time for the views of those involved to crystallise and be put into perspective. Judgements made while the staff and students are engaged busily in the course will not be as considered as those made after an interval has been allowed to elapse.

The other type of evaluation is called '**formative**'. This is the on-going process of assessing and re-assessing the progress being made throughout the course, the direction in which the course is heading, and the speed at which the goals are being achieved. Although formative evaluation will be undertaken throughout the course by teacher- trainers, often in association with students, provision should be made in the schedule of work for more systematic opportunities for review and assessment. Regular orientation is needed as to how far the course has got and how much further there is to go. Moreover, by highlighting the areas of success and identify those which need revision, alterations to the course can be made. The aim of formative evaluation is to provide the basis for regular course improvement, to determine the need for modification, and ultimately to lay the foundations for future planning. It is a continuing process of critical reflection on experience leading to action applied to the course or programme.

Key Point 14 A possible schedule for formative evaluation

Aims and objectives : are they still relevant to the needs of the students?

Content is it at the right level and the right amount for the students?

Teaching-learning strategies: are they acceptable and appropriate to the students?

Context, materials and other resources: are they helpful to the students?

You may care to add other questions to your formative (and on-going) evaluation schedule.

Pre-course Evaluation: Effective evaluation will need to start before the course itself has begun, by setting out not only the goals to be achieved but also the ways in which the achievements of these goals can be measured (see page 55 above). It will continue throughout the course, not be left until the end. And it will need to be concluded after the end of the course, by assessing the impact which the course has had on the students, on the staff and on the institution. As Misra has put it,

By definition, training evaluation can help us in sharply defining the training objectives, getting rid of unnecessary training content, make training methods meet the requirements of trainees, relate them to their training needs and reduce training costs. To derive maximum benefit from it, evaluation should be treated as a process and must be undertaken before, during and after training. (Misra, 1990)

3.3 Participatory Evaluation

Traditionally, evaluation has been governed by the need for objectivity. Subjective evaluation, relying on the emotional responses of individuals, has not been thought to be acceptable. So that most forms of evaluation tend to be undertaken by outside agencies to achieve impartiality.

But the value of some forms of subjective evaluation has now been recognised, for education mid training is designed to meet human needs, and these are by their very nature subjective. In addition, as we have seen above, learning itself involves the whole person, including the feelings. So student satisfaction is a valid basis for some forms of evaluation.

Nevertheless, this element of subjectivity may sometimes limit the effectiveness of the evaluation. People who are intimately involved with any process sometimes find it hard to stand back and see what is actually going on. For this reason, evaluation has often been done both internally by the participants and externally by outsiders.

Activity Box No. 37

Is your programme internally or externally evaluated or does it involve both forms of evaluation?

a) Internal evaluation: Most internal evaluations have been conducted by those directly connected with the curriculum such as teachers, policy makers and education experts (e.g from the Ministry of Education or Agriculture or from academic institutions). This ensures that the evaluation has credibility, since those contributing to it will have first-hand working knowledge of the programme. Some evaluations now include evaluation of the teaching programme by the students. Such evaluation is mainly formative evaluation, done continuously through the programme.

In practice, most **teachers and trainers** are evaluating their work all the time. They can hardly avoid doing so. It is part of the process of reflecting critically on what they are doing. But they often do it almost unconsciously. Bringing the process into the open will make it more effective.

On the other hand, although the users of the curriculum, the teachers and trainers, are best placed to evaluate it, and certainly should be involved in the process of evaluation, they may not be able to evaluate the curriculum critically, since they may be unaware of possible alternatives.

Evaluation by the **students** is one of the most important aspects of the process. As with the curriculum, evaluation will be more effective if it can be participatory. It is, however, sometimes difficult to involve the students in the evaluation process, partly because of teacher-student relationships and partly because of the perspectives held by the students about the purposes of the evaluation. Students often feel that they are themselves the subject of the evaluation rather than the curriculum, and they respond accordingly. Being involved in the evaluation puts the students on an equal basis with the teachers and enables them to see learning for what it is. Such evaluation is an important part of the learning process: through it, the students will be enabled to see how much progress they have made, what measures of achievement they can use for themselves, how much further they have to go before they reach their own goals. Teachers and trainers should not be afraid of including themselves in the evaluation. The goal of evaluation is not to judge but to improve and develop the positive aspects of the curriculum, and this can only be achieved through positive criticism. Evaluation, seen as critical reflection on the work of the teacher-trainer and leading to improved action, is a vital tool of personal development. Teachers may be evaluated by the students, by themselves, and by other colleagues

In many training programmes, students are being encouraged to assess themselves and their peers as well as the teachers. Groups of students may work together and help each other, not only by providing guidance on how to cope with the content of the course, but also by advising each other on performance and competency in different areas. Using checklists which detail competencies to be acquired with the relevant criteria provided, students can also assess their own progress. Such internal evaluation procedures become a motivating force for everyone involved in the learning process, as well as a means of monitoring progress and performance.

Activity Box No. 38

How can teacher-trainers promote the evaluation by their students of their own learning?

b) External evaluation: Most forms of summative evaluation are undertaken by external agencies - examination boards, for example. An external evaluator is likely to have a higher degree of independence and objectivity, and often wider experience of other courses and programmes. This is helpful since it is possible to obtain a broader view of the effectiveness of the curriculum.

Since external evaluators are usually brought in from outside the situation in which the curriculum is being implemented, they need to take into consideration a wide range of views about the purpose of the programme rather than make judgements solely on their own.

External evaluation is often based on assessments associated with examinations and tests given by teachers or other bodies to students. In these cases, the examiner has the power over the students since the examiner decides what will be assessed and how. This approach occurs naturally in those sectors of formal education where the students are excluded from the development of the curriculum.

But beyond this, if different stakeholders are involved in the development of the curriculum, it will be necessary to involve these same stakeholders in the assessment and evaluation of the programme. Those who have helped to develop the curriculum will need to know how well it is working. Regular review meetings of the stakeholders will be useful as part of formative evaluations; and their involvement in the summative evaluations will also be necessary.

Participation in assessment and evaluation is thus a valuable tool to enhance the effectiveness of programmes of education and training. It is essential if participatory methods are employed to develop the curriculum.

3.4 Measuring Success- Approaches to evaluating the curriculum

Some educationalists view evaluation as a means of finding out to what extent objectives have been achieved. Others see the curriculum more in terms of open-ended goals, in which each student will respond differently according to their prior experience and their differing learning needs. They are more concerned with the impact which the curriculum will have on these participants, and call for a wider range of data to be collected and a wider range of methods of assessment and evaluation. Evaluation may also be carried out in order to provide explicit guidance to those engaged in educational decision-making and policy-formation. The basis of all these approaches to evaluation, however, is whether learning has been facilitated through the curriculum, and if so, what quality that learning is.

3.5 Processes of Assessment and Evaluation

Assessing student learning: The aim of the curriculum is to promote learning, not just in terms of knowledge and/or skills but also in terms of attitudinal learning. The aim then of evaluation - both formative and summative and whatever model is adopted - is to assess how much and what kind of learning achievements have resulted from curriculum. There are many methods which can be used to find out what the students have learned. As with teaching-learning methods, choices have to be made. These choices are part of the process of creating the curriculum, and as such, they need to be laid before the participants in the curriculum development process. They are an essential part of the process of creating the curriculum, and should not be left solely to those who implement the curriculum.

Methods of assessing student learning: There are many methods of assessment and evaluation. It is not the intention of this manual to provide an exhaustive survey of all the most appropriate methods of assessing and evaluating the learning processes, but to provide enough guidance to help those engaged in participatory curriculum development to know what methods are open to them to include in their curriculum.

Assessing Knowledge: Probably the simplest way of obtaining feedback (assessment) is through asking questions. This is a good way of assessing knowledge and understanding, but less effective for determining changes in skills and attitudes. Information about learning can be gained both from the answers the students provide and from the questions they ask.

Asking questions does not have to involve writing; the responses can be given verbally. Nor does assessment in this form need to be individual: questions will often lead to a discussion in which the teacher and/or the students can monitor carefully what different members of the group are saying.

The most common form of assessment of knowledge is the written assignment. The many approaches to this may be arranged along a continuum, according to the freedom of response:

achievements in this area. Such activities are also tools of learning, so that the process of assessment and evaluation can itself become an activity which will promote learning. As we have seen in the section above on teaching-learning methodologies, evaluatory methods will meet the needs of some students with their own preferred learning style.

3.6 Evaluation as Research

The evaluation processes can be very complex. Decisions will need to be made about the type of information which will be required and how it is to be collected, analysed and interpreted. In fact, the evaluation process may be thought of as a type of action research. Bawden (1991) describes action research as “a particular way of critically learning about events in this world in order to change them. It combines theory with practice into a critical process.” Bawden highlights five main outcomes of action research:

- the practice of the practitioner researcher is improved
- the understanding of the practice by the practitioner is improved
- the situation in which the practice is practised is improved
- the understanding by the practitioner of the situation in which the practice is practised is improved
- there is a critical response from a sceptical public.

The practice of curriculum development, which, (as this guide advocates), should include all the relevant stakeholders, involves many different actions, all of which need to be monitored and evaluated. Evaluation of the impact of any particular action relating to the development of the curriculum is the basis of this action research process and can be carried out through a collaboration of individuals, or institutional groups or teams, which may include teachers, students, researchers, curriculum developers, and the other stakeholders identified.

In addition to the evaluation of particular actions, it is also necessary to monitor and evaluate the entire curriculum development process. This is likely to be done at set intervals, and once again involve all the stakeholders.

In order to evaluate the actions involved in curriculum development, as well as the whole process, decisions should be taken about the kind of information which should be collected. This may include the writing of regular reports and/or the collection of statistics (e.g. attendance), etc. In practice, curriculum developers are likely to have expertise in methods of evaluation, which they can use to advise and, in some cases, train other stakeholders in the technical skills of evaluation. The stakeholders will, as a result, be able to use their improved capacity for evaluatory research to explore and improve the curriculum development process as it relates to their own environment, and to make decisions effectively. The curriculum developer may work as co-ordinator or facilitator of the evaluation process, but should share control and involvement in all phases of the evaluation with other stakeholders.

Key Point 15 Sources of Information

Broadly speaking, there are three main sources of information:

- the use of existing data, e.g. census records;
- the use of documents and reports relating to the project; and
- special data collection efforts.

Evaluators collecting data can use a **qualitative** or a **quantitative** approach, or both:

- qualitative methods - e.g. interviews, participant observation, case studies, etc.
- quantitative methods - e.g. experimental design, surveys, questionnaires, etc.

The choice of methods will depend on the type of evaluation to be carried out. A combination of methods is particularly useful in educational research; this approach is known as “triangulation”. For example, an evaluation might be carried out using data collected through a questionnaire, in-depth interviews and participant observation.

Being involved actively in an evaluation process is time consuming and complex, but simple forms of evaluation are also very valuable. Stakeholders need to be motivated to do whatever is required for the evaluation to be carried out effectively and to a high standard, and so be able to develop evaluation skills quickly. The organisations within which the stakeholders operate will need to support their members, by valuing the research as a productive activity, providing time and resources needed, and by being committed towards organisational learning as a route towards improvement.

In order for the curriculum developer to work in partnership with the stakeholders effectively, he or she needs to have the required skills and technical expertise, be accessible to the partners and have the time to offer, have access to necessary resources (including financial backing), be able to train/advise practitioners in evaluatory techniques and skills, be motivated to participate, be tolerant, and acknowledge difficulties which are likely to arise during the process.

It is important that decisions about evaluation are taken throughout the whole curriculum development process. In PCD, they should be taken by as many of the stakeholders as possible. To be useful, the evaluation needs to be seen to be acceptable, not just within the educational and training institution, but also to a wider public outside it.

3.7 The value of evaluation

Feedback from an evaluation is supposed to bring substantial benefits to educational and training institutions and to programmes in terms of improved teaching and curriculum planning decisions. The information gathered can be used for a variety of internal purposes - for example, to feed into policy decisions, to act as a springboard for further research, or to support further applications for funding. But equally, it can be used externally as publicity for the institution, to recruit new students, or to strengthen relations between the institution and the local community.

In practice, however, utilisation of the findings of evaluations are very limited. Not many institutions, departments and organisations have conducted evaluations of their evaluations, but those which have, have come to recognise that there is a problem here. Some evaluations have proved to be irrelevant in their conclusions, incomprehensible, too long, or even too late. Many major studies have failed to provide concise straightforward conclusions leading to realistic and action-oriented recommendations.

This is a note of warning to all those who are likely to be involved in the process of curriculum evaluation. Participatory approaches to evaluation, however, can help to ensure that any evaluation conducted will lead to concrete results. As has been stressed continually throughout this guide, participation requires and provokes commitment. If stakeholders are involved in the design of the curriculum, they should also participate in the design and implementation of the evaluation of that curriculum. Their raised expectations will help to make certain that the outcomes, of the evaluation process will be worthwhile.

3.8 Conclusion

Effective and participatory evaluation is a key to the successful development of a curriculum. It is a mechanism which allows stakeholders access to the decision-making process, and enables them to have a say in what is being done now, and what will be done in the future.

It is clear that for evaluation to be carried out, the institution in which the curriculum is being developed must be organised in such a way that evaluation is part of its everyday life and work. This has major implications for the management of the curriculum. This is the focus of the next chapter.

Chapter IV - Further reading

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CHAPTER V: MANAGING THE CURRICULUM

Part 1: IMPLEMENTING THE CURRICULUM

Part 2: PARTICIPATORY APPROACHES TO STAFF

CHAPTER V: MANAGING THE CURRICULUM

Part 1: IMPLEMENTING THE CURRICULUM

This guide has looked at a number of issues which are important in the planning and evaluation of the curriculum. The way in which the curriculum which has been developed can be implemented, and the implications of this for management, now require examination.

This part of chapter V will look at the following issues:

- the changing curriculum;
- problems in implementing change; and
- curriculum-led institutional development.

1.1 The Changing Curriculum

Many curriculum developers have experienced difficulty in the implementation of their curriculum.

Some common reasons for problems with the curriculum at the implementation stage are as follows:

- the aims and objectives are too ambitious and unrealistic;
- the curriculum has created something of a ‘dual system’, where practical/vocational subjects are seen as an inferior alternative to more ‘academic’ subjects;
- poor planning (inappropriate choices and/or sequencing of content, methods and materials) and ineffective use of resources;
- lack of participation by the major stakeholders leading to lack of commitment, motivation and enthusiasm;
- lack of appropriate knowledge, skills and attitudes of teachers because of the lack of adequate and relevant training and support;
- constraints imposed on the learning process by the examinations and/or qualifications systems; and
- lack of resources, including funds.

Activity Box No. 39

Can you suggest some reasons for the failure of curricula at the implementation stage?

If you have experienced difficulties in the past, try to list what these difficulties were.

The curriculum is not a fixed commodity but is constantly changing. Educational establishments are not set in a vacuum; they are set within and are part of a society. As Rowntree (1981) notes, “the individual teacher cannot introduce too much change unless the institution changes, and the institution cannot change unless society changes”. This factor is double-edged. On the one hand, since society is constantly changing, so educational institutions will need to change and adapt continually. On the other hand, changes which educational institutions wish to introduce will not be fully effective unless the system of which the institutions are a part also changes. Society itself may be the greatest barrier to change. The question is often asked as to whether education changes society or society changes education. There is no simple answer to this, but the issue should be considered by all those who are involved in curriculum development.

a) **Factors which cause change:** Change in society may be initiated by political or demographic influences, or brought about by developments in agricultural practices and technology, by changes in the market, or by new perceptions about resource utilization and management. Policy decisions made at regional and local levels, as well as national development plans and changes in public attitudes also have major impacts on social and economic relationships in rural communities.

Rural society and communities will then have to change to meet many challenges. Such challenges can either be seen in a positive fashion, bringing new advantages to the communities concerned, or be seen as threatening and dangerous, disturbing existing attitudes and patterns of behaviour. To take a positive line of thought rather than viewing change as a threat, members of rural communities need to seize the new opportunities created and maximise the benefits from these changes.

Because of the many and varied causes of change, it is helpful to divide the factors which cause change in education and training organisations into two groups, external and internal.

Since a wide range of external and internal factors are creating change in every institution or programme, and since these factors are also constantly changing, the curriculum must change as well. Curriculum developers must therefore face the reality of change. It will be best if they can face these changes with the support of the stakeholders.

Activity Box No 40

You may care to ask yourself at this stage whether the new curriculum on which you are engaged is being introduced with the support of the society in which your educational or training programme is located or against its wishes. Or is society in general not interested?

b) Characteristics of Change: Change is not welcomed by most institutions. There may be much opposition and argument against change. There will, however, usually be some members of an organization who have a positive attitude to change and see it as a natural and worthwhile challenge.

The following are important characteristics of change in relation to educational institutions:

- the attitudes of the stakeholders
- the involvement or exclusion of the stakeholders from the decision- making and implementation processes;
- the differing claims, aims and values of the stakeholders; and
- what has been called the ‘transparency’ of the change process - the openness of decision-makers in providing reasons for their decisions, and the ease with which these are communicated the stakeholders.

Activity Box No 41

Look carefully at this list of external factors and internal factors to educational change, and see if you can identify any which have affected your own educational establishment recently.

External Factors

Changes in job market
Changes in policies (e.g. government)
Funding changes
Research
Changing needs of industry
Change in recruitment of workers
Expectations of stakeholders

Media/publicity
Donor conditions
Demographic change
Others

Adoption of new technology
Economic restructuring
Political change
Relations with other organisations
Natural disasters
New communications techniques and networks
Social environment

Internal Factors

Standards/quality control
Changes in aims, goals and priorities
Availability of resources
Technology available
Changes in organisational structure
Personal interactions and relationships
Leadership in the institution
Staff training and development
Others

Needs of trainees/students
Staff/trainee/motivation
Hierarchy in the institution
Growth of the institution
Internal politics
Curriculum change
Internal communication
Age profile of staff

Can you add any more to either list?

Education and training can play a vital role in the process of helping people to deal with change. It is important that we keep this in perspective. Education and training cannot address factors where the answers lie more in the political arena than elsewhere. For example, it is easy to overstate what education and training can do to overcome the problem of unemployment, under-employment, or population growth. But by addressing human resource capacity needs within rural communities, the perceptions of many rural dwellers about their

ability to develop and implement innovative and diversified approaches to their own problems may be enhanced. Through education and training, they can come to realise that what they know is valuable, and that they can make an important contribution to their own development.

As the context changes and the needs of community members alter, education and training needs to develop in order to keep pace with change. The providers of education and training need to be dynamic as well responsive to the process of change, since they are a formative part of it. Institutions which provide education and training may have not only to identify and respond to changes which have already taken place but also to create strategic plans which will enable them to anticipate change. The development of a new curriculum or the adaptation of an existing one should be seen in the context of the continuing need of all educational and training establishments to change and to meet new challenges.

In order to do this, there is a need for development, first of the institution in terms of structures and procedures, and secondly of the human resources, the teachers and trainers and other persons who work for it. The outcome of this discussion, therefore, is that the management of change is a critical activity of any education or training organisation.

Activity Box No 42

What responses are the providers of education and training making to the changes taking place in your rural communities?

How far is the curriculum which is the subject of your development process the result of challenges which come from changes in your own society; or is it totally internally generated?

c) Managing change: The characteristics described above can be managed by adopting curriculum change strategies, of which there are several.

The most simple strategy is to do nothing at all, but this is likely to cause more problems than it solves. Staff morale may be lowered by uncertainty and fear. Falling student numbers or increased work loads, new demands for quality criteria, restructuring and the disturbance which this brings, a felt lack of communication between the teaching staff and the management team and a lack of access to information, the apparent decreasing relevance of

the curriculum to the needs of the students, poor staff career prospects, and general exhaustion stemming from coping with a long-drawn-out sequence of changes - all these may lead to conflict among members of an institution, creating barriers to the successful management of change.

More effective strategies involve planning for curriculum change. Bradley (1991) describes two main models of the management of change by educational institutions which may be useful to think about in relation to the introduction of a new curriculum. They are both extreme cases; most institutions operate somewhere between these two models.

a) The first is what Bradley calls “**the Road to Damascus**” model. This is a dramatic reactive response by an institution, usually to externally imposed change. As the learning experiences offered by the institution are felt to become more and more irrelevant to changing needs, the point is finally reached when the institution is forced to react in order to survive. The strategy adopted may allow for temporary survival until the next crisis, when once again dramatic measures need to be taken.

b) The second model adopts a policy of **continuous improvement**. This is a proactive process whereby many small steps are taken, using careful monitoring and evaluation of progress to determine the action required. This process will involve systematic strategic planning and the careful allocation and management of resources. This is clearly a more desirable way of proceeding than the former model.

Activity Box No. 43

Which of these two models best describes the processes of change which the institution or organisation you work for or which you are most familiar with has been experiencing in the last few years?

The path which most educational and training organisations take is probably a mixture of both approaches. Sometimes the institution will be called upon to react swiftly to some externally applied sanction (financial cuts imposed by government, or by a sudden decline in the numbers of students, for example). But if the institution is continually introducing its own carefully planned changes so as to keep ahead of the field, it will be better able to meet sudden challenges and provide more immediate responses than if it is refusing to change,

clinging to its older mission, resisting the current of contemporary changes until forced to undertake some course of action

It will be essential, when introducing a new curriculum, that the institution to decide whether this event is to be regarded as one step among many in a path towards the greater effectiveness of the whole organisation, or whether it is to be seen as an isolated reaction to increasing outside demands. It is the view of this guide that the introduction of a new curriculum should be considered as a planned-for part of the development programme of a continually changing institution and not as a panic reaction to outside pressure. Organisations like society, are (or should be) continually changing and growing.

Once this has been determined the institution can consider more detailed but equally important issues such as the location of the new course in the total institutional programme, the location of control, the allocation of resources, the administrative needs of the new programme, the development of adequate lines of communication, the provision of opportunities for the continuing revision of the curriculum, and possible contingency plans for when things go wrong (the risks and assumptions behind the new curriculum will need to be examined carefully.) In other words, before any new curriculum is implemented, a full strategic review should be carried out by all the interested institutional partners (the internal stakeholders) to see what changes such a curriculum programme is likely to bring to their activities. This review needs to be undertaken by a team which includes administrative and secretarial staff as well as teaching and management personnel, for they too are stakeholders. It will be important for all these participants to share in the decision-making about the new programme if they are to support it enthusiastically. This is part of a PCD approach.

1.2 Problems in Implementing Change

At the heart of all the problems which arise when implementing curriculum change lie two main groups of factors - the attitudinal and the resource factors.

a) The attitudinal factors: Many people are reluctant to accept educational change. These include many teachers, parents, employers, members of the Ministries and, of course, students. Some of these stakeholders will not always be enthusiastic about the changes they are being asked to help to devise.

Rowntree (1981) notes live such barriers to the implementation of educational changes:

- the teachers' lack of clarity about the proposed innovation;
- their lack of the kind of skills and knowledge needed to conform to the new role model;
- the unavailability of the required teaching-learning materials;
- the incompatibility of the organisation's management arrangements with the proposed innovation; and
- loss of staff motivation.

Such problems can be overcome to a large extent by adopting a genuinely participatory strategy, by involving as many people as possible in the decision-making and implementing processes. Since teachers are key stakeholders in the curriculum development process, their involvement is a necessary prerequisite for any successful implementation of the new curriculum. They are more likely to be motivated to implement a curriculum which they have helped to develop.

A great deal of support is necessary when changes are taking place. This will have an important impact on the attitudes of the people involved. All those concerned with curriculum

development and implementation - teachers, managers and external advisers- may need some form of in-service training which will provide them with the necessary competencies to implement and evaluate the new curriculum. Local support groups of teachers or teachers' centres may be used to provide these groups with a voice of their own.

b) The resource factors: Many problems arise from issues relating to resources and administration. There are often shortages of those things most needed for the effective implementation of a new curriculum, such as staff, money, land, buildings, tools and equipment, textbooks and teaching materials, and, very importantly, time.

The provision of adequate resources will not only affect the process of implementation of the new curriculum. It will materially influence the attitudes of those most concerned. This means that managers and administrators will need as much induction into the reasons for the changes as the teacher-trainers themselves, so that they can understand areas of difficulty and give the kinds of support, both material and psychological, that are required.

Time: One of the biggest dangers of curriculum innovation is allowing too little time for the acceptance and success of new developments. Some innovations are the whims of individuals who are trying to 'make a mark' on the system while they can; they are usually rushed through and implemented at very short notice. Other changes suffer from lack of adequate time being allowed for their successful implementation. Major educational change may take many years before it is fully absorbed into the system. It is therefore important that those concerned should give the new curriculum a fair chance to succeed. By the time the implementation is complete, further changes may be necessary. The cycle of change is never ending, but there should always be "a plateau of equilibrium" from which innovations may be launched.

Activity Box No. 44

When was the last major change introduced into your organisation?

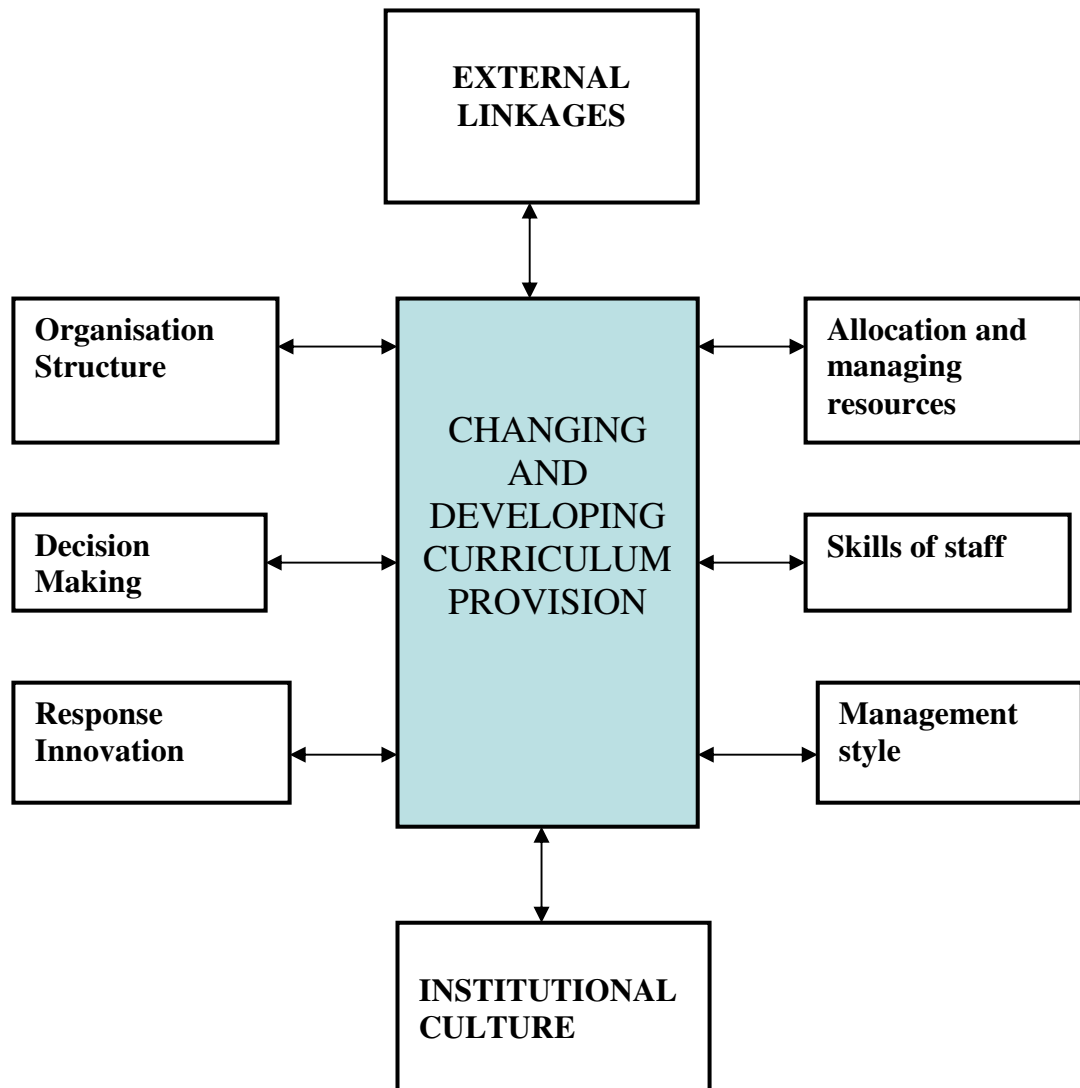
What has been done to allow this change to be absorbed and become effective?

1.3 Curriculum-led Institutional Change

An educational and training institution which implements a new curriculum will necessarily change as the new programme is carried out. It is important to remember (especially if the curriculum development team is within a Ministry or educational research organisation) that a curriculum does not stand on its own. It exists within the context of some kind of educational institution or organisation. Thus, when a new curriculum is introduced, not only will the curriculum change, but the institution will also change.

Miller, Turner and Innis (1986) have described some of the areas in which change brought about by curriculum development may occur. This is illustrated in the following diagram:

Fig. 12 Institution-Led Curriculum Development (after Miller, Turner and Innis, 1986)



It will be useful to examine all these areas in more detail.

Organisational structure: Organisations are usually one of two main forms, department- linear or matrix. In both cases, there is often a tension between the institution-wide structure of the organisation and the system of sub-units of which it is made up. Curriculum change may heighten these tensions. Ultimately, the structure must align itself to the new institutional aims and objectives as expressed in the revised curriculum.

Such structural changes will lead to:

- changing roles of the staff -. the managers will need to clarify new roles and assess the consequences;
- the need to revise or develop new procedures and mechanisms, for example, meeting new expectations of finding bodies, changing admissions and marketing policies,

managing resources, monitoring the effectiveness of the institution's response to new clientele, etc; and

- the need to work across existing internal boundaries which may mean some staff dealing with unfamiliar territory.

Decision-making: Decisions need to be made in relation to the new curriculum. Such decisions will be external to the institution (in which case there may be difficulty in the staff identifying with the decisions), internal to the institution, or made by individuals. Some reflection on the processes by which decisions are made and implemented will be necessary.

The allocation and management of resources: Problems in this area which may be caused by a new curriculum may come from traditional practices constraining curriculum implementation, from inadequate resources being available, or from time constraints. Changes in the management of resources may be needed if the new curriculum is to be implemented effectively.

External linkages: Although usually seen as an entirely internal matter, a new curriculum is almost certain to cause changes in some of the institution's external relationships. Linkages with policy makers, with industry and business communities, with voluntary and private agencies, with funders, with employers of the institution's graduates, with examination boards etc, may all to some extent be affected. Two main areas of concern may be noted here: whether there is an adequate mechanism for dealing with such external bodies and for keeping staff informed of such changes in these relationships; and whether those who engage in such relationships on behalf of the institution have the required authority, status and skills to do so effectively. In particular, a new curriculum may create a demand for changes in the way students are recruited and selected, and therefore in the institution's public relations and marketing mechanisms.

Staff skills: Some staff may need to learn new skills and knowledge, and develop new attitudes. Others may be required to exercise skills and knowledge which they have not had to use so far. The courses through which the new curriculum is implemented will call for new skills - perhaps team work, new approaches to tutoring, new teaching- learning strategies, new assessment procedures, or new technologies. Managers will need to develop further their audit of staff competencies, and staff development programme will be required to meet new needs. Some staff may find themselves called upon to do things against their wishes or beyond their abilities. The management of human resources may well be strained by a new curriculum.

Response to innovation: All institutions and organisations need to respond to and develop innovative approaches, sometimes at short notice or when they are fully stretched in other directions. They may of course decide to do nothing and blame external forces for their subsequent demise! But those which survive will be those which have developed structural flexibility (for example, new teams or groups, perhaps permanent, perhaps temporary; older ones may have to be disbanded), imaginative leadership encouraging experimentation and some risk taking, and proper time management.

Management style: The challenges of a new curriculum to management will include such matters as whether the existing management style adequately reflects the new teaching-learning strategies; whether the institution can cope effectively with participatory approaches to important decision-making areas such as the curriculum, central to the mission of the institution; whether the management team is willing to support curriculum-led institutional development; and whether the relationships within the organisation are such as to facilitate the changes. Changes in patterns of management often follow the introduction of a new curriculum.

Institutional culture: All of the above factors contribute to the culture or ethos which pervades the whole institution. Such a culture either helps or hinders the institutional changes which follow from the introduction of a new curriculum. The organisational culture will certainly be affected in some way. The question which an institution needs to ask is whether its culture is managed or left to look after itself.

You may care to think about the following questions:

Activity Box No. 46

What are the main pressures for change which have affected your own institution?

Have these pressures resulted in changes in the curriculum?

If so, how has this process of curriculum change been managed so far?

In the light of the above discussion, how could the management systems of your institution be improved in order to deal with the process of change more effectively?

1.4 Conclusion

Everyone who works in an educational or training organisation is concerned with helping others to learn and learning alongside them. This basic function of training institutions should always be remembered, so that when management decisions are taken, the impact on the learning process may be predicted, monitored and evaluated. This is the responsibility of all those involved in the process of curriculum development.

Training institutions need to manage change effectively. This means that training institutions are themselves “learning institutions”. They are not simply a collection of bricks, wood and equipment. The most vital element of a training institution which enables it to function properly is its staff. This human resource has needs too. The way in which these needs may be met is the subject of the next discussion.

CHAPTER V: MANAGING THE CURRICULUM

Part 2: PARTICIPATORY APPROACHES TO STAFF DEVELOPMENT

2.1 Developing and Utilising the Skills of the Staff

As we have seen, the staff members of an institution are a crucial resource. There is a growing appreciation and understanding that the development of an institution and the development of its staff members are “related and mutually dependent” (Bradley 1991). Holloway (1994) emphasises that staff development (or “continuing professional development”) is vital for enabling an institution to respond to change: “...college staff need to acquire a commitment to continuing professional development in order that they might cope with the pace of change”.

The reference to ‘professional development’ does not mean that staff development is only for teaching and management personnel. As Cantor and Roberts (1986) have pointed out, staff development is “concerned with the professional development and personal development of the staff... whether they are engaged in teaching, administration or ancillary duties”.

This is particularly true of a new curriculum. Teachers will, at the end of the day, be the implementers of the new curriculum, while the managers of the institution will be overall directors, and the administrators and other staff will be facilitators of the new activity. All will need to change their perceptions and attitudes. All will need to develop that commitment, motivation and enthusiasm which is essential to the success of an educational and training programme.

Finally, staff development is not only needed to fulfil the mission of the educational and training institution. Employers have a responsibility for the well-being of all their staff. It is not simply a matter of the staff ‘being developed’ for the sake of the institution. Rather, an institution should provide for and enable staff development for the sake of the staff themselves.

a) Continuing Professional Development Needs: The role of all the staff within an educational institution is to promote learning. The staff of educational organisations are not there solely to change others. They are part of a transformative process in which they are themselves changed in order to bring about change in others.

The continuing professional development needs of the staff have to be considered in the light of the initial or pre-service training which they have already experienced. Some will have engaged in specialised, vocational educational programmes, others in broader, more academic kinds of education. In both cases, in-service training will be needed, in the former cases, to update their knowledge and skills and to provide wider perspectives, and in the latter cases, to build their capacity to undertake specific tasks.

In particular, many teachers in educational and training institutions above school level need some form of training in how to teach, for they may never have had any opportunity to develop their knowledge, understanding and skills in this area. This is especially true of agricultural educational and training institutions. Teachers and trainers in these organisations tend to be subject specialists, often without formal pedagogical training (the study of curricular matters, methods of teaching and learning, communication skills and related topics). This situation is different from primary and secondary schools, where most teachers have received some form of pre-service training in teaching-learning methodologies.

Teachers and trainers who are technical specialists are usually employed because they possess special skills and experience, and they are expected to be able to pass these on to students. It has been noted that these teachers tend to use very didactic methods rather than learner-centred approaches, although they may empathise well with the students because of a communality of professional interest. But it is important for them to be able to recognise the differences among their students as well as their similarities; and these differences will call for the careful use of active learning methodologies as well as more didactic methods. Staff development programmes can provide an opportunity for teachers to enhance their professionalism by developing their specialist skills, while at the same time learning new ways of teaching and of promoting learning.

There is a traditional view of staff development as simply being the provision of training courses. Staff development may well include both externally provided and internal training courses, but there are many other activities which will help to “meet the needs of the individuals concerned, develop their confidence and provide intellectual support for their day-to-day work” (Cantor and Roberts, 1986).

b) Forms of staff development: The needs of staff vary greatly, since their previous education and training experience also vary. Their personal learning styles will also vary. It is therefore essential that staff development programmes should embrace a wide range of activities adapted to the particular needs of each member of staff.

Activity Box No. 46

What forms of staff development are already available in your institution?

What new forms do you think will be needed to ease the introduction of the new curriculum?

Who should be included in these programmes?

There are many different forms of staff development. The following key point lists some examples.

Key Point 16 Staff Development Activities

Staff development activities may include:

- peer review and support
- working in teams
- job shadowing
- job rotation
- regular and systematised opportunities to visit other institutions
- sabbaticals/study leave
- more systematic delegation of tasks from senior staff to staff at lower levels
- staff appraisal
- organisation or departmental audits and reviews
- needs analyses
- institution or departmental-based training courses
- supervised individually-based training programmes
- the development of long-term mission statements
- regular review of goals (departmental or organisational or personal)
- conducting market research
- inter-departmental collaboration
- monitoring
- systematised self-evaluation
- regular up-dating programmes in certain skills (e.g. technological) to ensure compatibility with modern developing systems
- formal procedures for feedback
- personal and professional support and counselling systems
- appropriate leadership within the institution
- opportunities for social development to increase motivation and provide encouragement
- recognition of achievement
- increasing responsibilities with support
- participation in nationally and locally recognised accredited training programmes

from Cowan (1993)

c) On-the-job and off-the-job training: In one of the PCD case studies (Namibia), there was a discussion about the value of on-the-job training and off-the-job training. The advantages and disadvantages of both modes of training were set out by the participants. Disagreements about the respective merits of each mode were registered, but in the end, it became clear that the bulk of the trainees on balance preferred off-the- job training.

Key Point No 17: Advantages and Disadvantages of on-the-job and off-job training (workshop paper compiled by middle level extension staff, Namibia)

ON THE JOB		OFF THE JOB	
Pro	Con	Pro	Con
<p>Cheaper Job can be continued attendance assured</p> <p>easy to arrange more control more flexible individualised</p> <p>immediate application uses experience practice possible continuous learning follow-up easier builds more self-confidence more voluntary</p>	<p>interruptions distraction</p> <p>limited resources</p> <p>Learner often isolated</p> <p>will take up too much time</p>	<p>no distraction</p> <p>wider horizons</p> <p>meet other people new experiences more resources more academic better specialist knowledge</p> <p>delayed application</p> <p>more competitive better motivation</p>	<p>More costly job unattended attendance</p> <p>uncertain</p> <p>too theoretical learner away from home</p> <p>difficult to build in experience practice difficult one-off experience follow-up difficult</p> <p>learner usually directed to attend</p> <p>organization can only send few persons</p>

d) In-service training: The provision of more or less formal in-service education and training activities (often called INSET) is one way of achieving staff development. These programmes may be provided by the institution itself; using either its own staff or staff brought in for the occasion. Or they may (and often will) be provided by external (usually academic) bodies, frequently leading to some form of (further) qualification. Sometimes they are standardised courses, which may meet the needs of some of the staff (e.g. in teaching-learning methodologies or information technology). On other occasions, they are tailor-made to meet the requirements of the group of staff concerned. There is much value in such programmes, especially if they enable staff from one institution to meet staff from similar institutions.

One form of INSET, which is frequently undertaken by academic and other staff and facilitated by the employing body, is private study towards a higher qualification (say, a master's degree or membership of a professional institute) through an outside institution. Some educational and training institutions assist individual staff by the payment of fees and the provision of time for such study.

Research and institutional/staff development: Some staff in the search for their own development engage in research, often for a PhD qualification or for publication. In this, they may be assisted by their employers. Most institutions require that such studies should be in an area directly related to the on-going work of the institution, and that it should contribute to the development of the institution.

Research (whether conducted by individuals or by groups) is the most significant way in which the development programmes of the staff and the institution can come closer together. In this regard, the introduction of a new curriculum will call for research into its effectiveness and its impact on both the institution and the community. Such research should be built into the curriculum implementation and evaluation process.

2.2 A Staff Development Policy: In order to facilitate staff development, the following decisions need to be taken at managerial level:

- to establish firmly throughout development is vital for the departmental and personal goals;
- that staff development is adequately funded;
- that internal systems of systematic staff development are established;
- that where appropriate, the facilities provided by external training agencies shall be used; and
- that open channels of communication are established within the institution to provide opportunities for staff feedback and for the discussion of ideas originating from the staff.

f) Responsibility for staff development: There is an on-going debate as to where initiative for staff development should come from. Is professional development a matter for individuals to request and the institution to respond, or is it a matter of directive from above? Does the responsibility for staff development lie with the institution, with line management, or with the individual? While practice will vary, all three will probably need to share responsibility.

In the long-term, however, responsibility for continuing and incremental change must lie with the staff member. It needs to become self-initiated. Every person needs to accept

responsibility for his or her personal growth. Staff development is part of the process of personal growth of all individuals throughout the whole of their lives.

2.3 Implementing PCD in an Institutional Setting: The use of this guide can form part of an institutional and staff development programme. Groups of staff can meet to discuss the various sections and work through the participatory process, reviewing an existing curriculum and seeking a wider range of views on it. Papers relating to each of its sections can be prepared and circulated around the institution for wider discussion. Evaluations of the existing curriculum content and activities and the materials being used can be made. PCD is not necessarily confined to the preparation of a new curriculum; it can be used to assess the effectiveness of an existing curriculum. Such a process would form part of the staff development process of those participating and of the institution as a whole.

Activity Box No 47

How are decisions about staff and institutional development taken in your institution?

Many teachers and administrators in educational institutions feel marginalised. They are not always consulted, their views are often not treated as seriously as those of managers. They frequently feel that they are intended to implement programmes designed by others. It is, as has been indicated in several different occasions throughout this guide, hard to develop commitment, motivation and enthusiasm in these circumstances.

But there is one group which is even more marginalised than these staff members - the students. They often feel that they are treated as if they know nothing and can do nothing; they feel as if they are regarded as being unable to offer any worthwhile experience, knowledge and skills to the course. They are rarely consulted and even more rarely encouraged to make decisions about their own learning programme.

In many forms of staff development, especially in those more formal INSET courses, teachers and trainers are put in the same situation as their students. Programmes are devised for them

and taught to them. They are frequently not consulted about their own development needs. But if they are to be able to offer their own experience, knowledge and skills as something worthwhile to the course, if they are to meet their own needs, if they are ultimately to become responsible for their own self-development, then it is important that they should come to feel that they will have some influence over the decisions in this area which will affect them materially.

2.6 Conclusion

Staff development needs to be planned and implemented in a participatory way. This is particularly true of the introduction of a new or revised curriculum designed in a participatory way. It can scarcely be imposed on unwilling teachers. The best way to overcome such unwillingness is to involve those who will implement the curriculum in the decisions relating to any further training and staff development which may be needed.

The process of participation is clear. The conflicting needs of the various parts of the organisation should be fully discussed by all those involved (the internal stakeholders). Staff need to be aware of the process by which staff development is planned and organised, and feel that they can represent their needs and desires in this process. They also need to feel that the training or other development programmes offered to them reflect their individual needs as well as the needs of the institution.

The motivation and willingness of all the staff of the institution to commit their knowledge, skills and energy to the effective functioning of the new curriculum depend on their participation in decisions relating to the staff and institutional development programme.

Chapter V - Further reading:

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Rogers, A. (1996) *Participatory Training: using critical reflection on experience in agricultural extension training*, *Training for Agriculture and Rural Development 1995-6*, No. 54, Rome: FAO.

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CHAPTER VI: CONCLUSION

In this guidebook, we have been arguing that those engaged in curriculum development in any educational organisation or institution should not decide matters relating to the curriculum by themselves and not even solely with the student body or its representatives (where that is possible) in a negotiated curriculum. Instead, we are arguing that a wider form of participation should form the basis of all new curricula:

- identifying the stakeholders (who are often a wide group of people and bodies);
- finding ways of working with them in
 - determining the learning objectives
 - building the learning programme from these objectives; and
- continuing to work with them as the course or programme unfolds, to see how the new or revised curriculum is working (monitoring) and whether it is achieving its aims and goals (evaluation).

Participatory monitoring and evaluation are an inevitable consequence of participatory curriculum development.

PCD then involves three different groups:

- a) the curriculum developers who initiate the process;
- b) the organisation within which they work; and
- c) the stakeholders.

Bringing together these three groups and working with them over an extended time can be seen as a development process in its own right.

The **stakeholders**, as they work with you, will engage in much new learning. They will develop new insights from new experiences; they will reflect critically on their own experience; they will be asked to take action in the form of deciding upon a new curriculum. They will gain much from the process which can be applied to their other activities.

The **institution or organisation** within which the curriculum developers work will find itself constantly challenged into new ways of thinking and acting as it interacts with the external stakeholders. Hierarchical institutions will be encouraged to become more participatory, more open to outside influences and ideas. Participatory institutions will be enriched with the active commitment, enthusiasm and support of another group of persons and bodies which will be taking an increasingly keen interest in some parts of its work. No institution which engages in PCD will emerge the same; it will have learned a lot from the experience.

And the **curriculum developers** themselves, as they work with both groups, the external stakeholders and the institution or organisation in which they are located, will find themselves engaged in self-development on a large scale - re-thinking their basic principles and motivations, seeking new ways to implement ideas, helping others to participate, reconciling differences, locating new materials and finding ways of bringing them into play. PCD is a significant form of 'people's self-development'.

All three groups then will be engaged in what is now called 'Participatory Learning and Action' (PLA) which forms one of the key elements of modern approaches to development. PCD is not simply a tool to promote development. It is itself a developmental activity which (like all other forms of development) will lead to more and deeper development. Real development never ends: effective and sustainable development always leads to further development until we reach to a developing world. PCD makes its contribution to this goal.