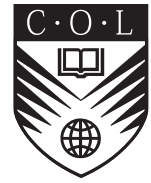


COMMONWEALTH *of* LEARNING



# PREST

Practitioner Research and  
Evaluation Skills Training in  
Open and Distance Learning

Measuring outcomes

HANDBOOK

**B2**

The PREST training resources aim to help open and distance learning practitioners develop and extend their research and evaluation skills. They can be used on a self-study basis or by training providers. The resources consist of two sets of materials: a six-module foundation course in research and evaluation skills and six handbooks in specific research areas of ODL. There is an accompanying user guide. A full list appears on the back cover.

The print-based materials are freely downloadable from the Commonwealth of Learning (COL) website ([www.col.org/prest](http://www.col.org/prest)). Providers wishing to print and bind copies can apply for camera-ready copy which includes colour covers ([info@col.org](mailto:info@col.org)). They were developed by the International Research Foundation for Open Learning ([www.irfol.ac.uk](http://www.irfol.ac.uk)) on behalf of COL.

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### Handbook B2: Measuring outcomes

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# Measuring outcomes

## Handbook overview

Welcome to Handbook B2 of the PREST series. We hope that you will find this handbook on *Measuring Outcomes* useful to your work as a researcher.

If you have already worked through other PREST titles, you will already have some knowledge about research and evaluation as a field. If so, you will find that a number of the concepts covered in this handbook are already familiar to you. We hope that you will be able to build out from this knowledge base through the different study units covered in this handbook.

Why do we need to know about outcomes in planning programmes, designing courses and evaluating teaching? How does knowledge about measuring outcomes help in conducting research about open learning and distance education (ODL)? How does this knowledge help in planning, implementing and evaluating ODL programmes?

These are some of the questions you may be asking with respect to your own research and evaluation projects, which we hope this handbook will be able to answer. The particular focus of the different units in this handbook lies on providing you with both knowledge and skills you can apply in designing and developing your own programmes and courses, in work in teaching, or in research and evaluation work with ODL programmes. Above all, we hope that you will be able to use what you learn in this handbook to deepen what you already know, and to improve your own practices.

## Aims of the handbook

The aims of this handbook are to review methods by which you can establish:

- ▶ Whether programmes achieve their objectives.
- ▶ The importance of outcomes in programmes.
- ▶ Through contact with different stakeholders in programmes, which objectives and outcomes they consider to be important.

And to answer specific questions, such as:

- ▶ What types of information can show whether a programme has met its objectives?

- ▶ Why is it important to work with programme stakeholders, in gathering information about a programme and its outcomes?
- ▶ How can information about a programme's objectives and outcomes help in improving a programme?
- ▶ How can information about a programme's objectives and outcomes help in planning for the future?

## Handbook organisation

The Handbook is structured into this introduction and six units, as follows.

This introduction: (30 mins)

Unit 1: Objectives and outcomes in programme planning, implementation and evaluation. (3 hrs)

Unit 2: Involving stakeholders in programme planning, implementation and evaluation. (3 hrs)

Unit 3: Establishing aims, objectives, outcomes, indicators, inputs and outputs. (5 hrs)

Unit 4: Collecting information about programmes. (5 hrs)

Unit 5: Analysing, linking and reporting information about programmes. (4 hrs)

Each unit is made up of the following components:

- ▶ an introductory paragraph or two that provide an overview of the unit, its focus and outcomes
- ▶ one or more activities for you to engage in, such as readings to complete and analyse, questions to answer, or problems to solve
- ▶ a commentary on these responses that takes you deeper into the topic by providing new information and suggesting further reading
- ▶ feedback on your responses to the questions or problems posed in each activity.

You will need about 20 hours to work through the five units of this Unit.

## Resources

The following resources are used in this handbook:

Resource	Name when referred to in our text	Location
Fentiman, A. 2003 <i>SOMDEL: Somali Distance Education Literacy Programme (Maccalinka Raddiya)</i> , report prepared for African Educational Trust by the International Research Foundation for Open Learning (IRFOL), Cambridge: IRFOL	<i>Fentiman</i>	<i>Resources File</i>
UNFPA 2001 'Glossary of monitoring and evaluation terms' in <i>The Programme Manager's Planning, Monitoring and Evaluation</i> , at <a href="http://www.unfpa.org/monitoring/toolkit.htm">www.unfpa.org/monitoring/toolkit.htm</a>	<i>Glossary</i>	<i>Resources File</i>
Potter, C. 1997 <i>What is evaluation? A workbook</i> , Department of Psychology: University of Witwatersrand	<i>Potter - Workbook</i>	<i>Resources File</i>
Beagley, M. 1999 <i>Open Access College</i> , Case study prepared to accompany the Training Toolkit Series, produced by Commonwealth of Learning and the Asian Development Bank ( <a href="http://www.col.org/programmes/training/toolkits.htm">http://www.col.org/programmes/training/toolkits.htm</a> )	<i>Beagley</i>	<i>Resources File</i>
Leigh, S. 1995 'Evaluation of the pre-pilot phase of the Radio Learning Programme', in C. Potter., A. Arnott., I. Hingle., J. Mansfield., L. Mashishi., M. Mentis and S. Nene. <i>The development and implementation of 'English in Action' in South Africa 1992-1994</i> , Braamfontein: The Open Learning Systems Education Trust, pp 1-3	<i>Potter et al (part 1, 2,3, 4 on pages 1-3)</i>	<i>Resources File</i>
Potter, C. et al. 1993 'Evaluation of the pilot phase of the Radio Learning Programme', in C. Potter., A. Arnott., I. Hingle., J. Mansfield., L. Mashishi., M. Mentis and S. Nene. <i>The development an implementation of 'English in Action' in South Africa 1992-1994</i> , Braamfontein: The Open Learning Systems Education Trust, pp 3-20	<i>Potter et al (part 5, 6, 7, 8 on pages 3-20)</i>	<i>Resources File</i>
Potter, C. 1995 'Formative and summative evaluation design for a radio learning project', <i>Journal of Educational Evaluation</i> 3, 1: 3-30	<i>Potter – Formative and summative</i>	<i>Resources File</i>
Potter, C. 1999 <i>Using questionnaires and focus group interviews in an evaluative Study</i> , Department of Psychology: University of the Witwatersrand	<i>Potter - Questionnaires</i>	<i>Resources File</i>
Potter, C., Meyer, M., Scott, A. and da Silva, M. 1991 'Study habits and attitudes of students in five engineering disciplines', <i>Report and Reprint Series no 7</i> , Centre for Continuing Education: University of the Witwatersrand	<i>Potter - Engineering</i>	<i>Resources File</i>

## Core readings

The following texts are the main sources for you to consult in relation to this handbook.

### Introduction to the field of programme evaluation

Rossi, P. and Freeman, H. 1985 *Evaluation: a systematic approach* (3rd ed), Beverly Hills, CA: Sage Publications.

Patton, M. 1978 *Utilization-focused evaluation*, Beverly Hills, CA: Sage Publications.

Posavac, E. and Carey, R. 1995 *Programme evaluation* (4th ed), Englewood Cliffs, NJ: Prentice-Hall.

Herman, J. Morris, L. and Fitz-Gibbon, C. 1987 *Evaluator's handbook*, Newbury Park, CA: Sage Publications.

### Programme Evaluation Design

Stecher, B. and Davis, W. 1987 *How to focus an evaluation*, Newbury Park, CA: Sage Publications.

Guba, E. and Lincoln, Y. 1981 *Effective evaluation*, San Francisco, CA: Jossey-Bass.

Stake, R. 1983 'Program evaluation, particularly responsive evaluation', in G. Madaus, M. Scriven and D. Stufflebeam, (eds.), *Evaluation models: viewpoints on educational and human services evaluation*, Boston: Kluwer-Nijhoff.

McCormick, R. and James, M. 1983 *Curriculum evaluation in schools* (2nd ed), London: Routledge.

Worthen, B., Saunders, J. and Fitzpatrick, J. 1997 *Program evaluation: alternative approaches and practical guidelines* (2nd ed), New York: Addison Wesley Longman.

Leedy, P. and Ormrod, J. 2004 *Practical research: planning and design* (7th ed), Upper Saddle River NJ: Merrill.

Worthen, B. and White, K. 1987 *Guidelines for proposal review, onsite evaluation, evaluation contracts and technical assistance*, Boston: Kluwer-Nijhoff.

### Data Collection, Organisation and Analysis in Multimethod Designs

King, J., Morris, L. and Fitz-Gibbon, C. 1987 *How to assess program implementation*, Newbury Park, CA: Sage Publications.

Patton, M. 1987 *How to use qualitative methods in evaluation*, Newbury Park, CA: Sage Publications.

Breakwell, G., Hammond, S. and Fife-Shaw, C. 1995 *Research methods in psychology*, London: Sage Publications.

Richardson, J. 1996 *Handbook of qualitative research methods for psychology and the social sciences*, Leicester: British Psychological Society (BPS Books).



Morris, L., Fitz-Gibbon, C. and Lindheim, E. 1987 *How to measure performance and use tests*, Newbury Park, CA: Sage Publications.

### Current Developments In the Field

Rossi, P., Freeman, H. and Lipsey, M. 1999 *Evaluation: a systematic approach* (6th ed), Thousand Oaks CA: Sage.

Potter, C. and Kruger, J. 2001 *Social programme evaluation*, in Seedat, M. (Ed.), *Community psychology: theory, method and practice – South African and other Perspectives*. Cape Town: Oxford University Press.

Weiss, C. 1998 *Evaluation: methods for studying programs and policies* (2nd ed), Upper Saddle River NJ: Prentice Hall.

Fetterman, D. 2001 *Foundations of empowerment evaluation*, Thousand Oaks CA: Sage.



# Objectives and outcomes in programme planning, implementation and evaluation



## Unit overview

This unit provides an overview of a number of key concepts which you need for studying outcomes:

- ▶ aims
- ▶ objectives
- ▶ outcomes
- ▶ indicators
- ▶ inputs
- ▶ outputs

It focuses on why it is important for research and evaluations about programmes to include information about programme objectives as well as programme outcomes. Three case studies are introduced to illustrate the concepts introduced. These focus on aspects of a programme's logical framework or theory of implementation (aims, objectives, outcomes, indicators, inputs and outputs) in programme planning and evaluation, as specific aspects of programmes which can be identified, observed, measured or assessed.

## Terminology

We are going to talk a lot about the term 'logical framework' and the term 'theory of implementation'. Since these are different terms for the same thing, we shall normally simply write 'logical framework', which you can read as 'logical framework of theory of implementation'.

## Learning outcomes

When you have worked through this unit, you should be able to:

- I Analyse a completed evaluation study to establish how aspects of a programme's logical framework can be applied in the planning, implementation and evaluation of ODL programmes.

- 2 Define the relationship between aims, objectives, outcomes, indicators, inputs and outputs and a programme's logical framework.
- 3 Represent different ways in which these aspects of a programme's logical framework can be used as organisers in planning and evaluating ODL programmes.
- 4 Use these aspects of a programme's logical framework in planning a new ODL programme relevant to the context in which you work.

## Concepts and terms in outcomes

We shall start by your looking at a case study. Once you have reviewed this, we shall go on to look at some of the terminology used in that case study.

### Activity 1 30 mins



You will need the resources *Fentiman* and *Glossary* for this activity.

- 1 Read through the *Fentiman* case study, paying particular attention to any technical terms that you are not familiar with.
- 2 Use the *Glossary* to check any terms that are new to you or seem to be used in a specialised way.

*The feedback to this activity is at the end of the unit ►*

We shall now go on to consider a number of the concepts and terms used by Fentiman in her study. Then we will focus on how these are used in both the planning and evaluation of ODL programmes.

## What is a programme?

The term 'programme' has a number of possible meanings. A programme is commonly defined as a series of activities, a list of activities or a plan of activities which are going to take place in the future. In addition, the processes of planning, implementation and evaluation involved in programme development are often referred to.

The United Nations Task Force on Rural Development (1984), for example, produced a list of key terms, concepts and purposes of Monitoring and Evaluation, in which a programme is defined as

*'an organised set of activities, projects, processes or services which is oriented toward the attainment of specific objectives (e.g. WHO's Programme for Health Systems based on Primary Health Care and the Functional Literacy Programme of UNESCO).'*

In the *Glossary*, a programme is defined more specifically as

*'A time-bound intervention similar to a project but which cuts across sectors, themes or geographic areas, uses a multi-disciplinary approach, involves multiple institutions and may be supported by several different funding sources.'*

## Programmes involve action

What is common to both these definitions is that programmes involve action. The term 'educational programme' is often used to refer to a number of linked educational activities, usually undertaken by a group of people who plan these activities together. The term 'social programme' is used to refer to a social intervention which involves a number of people working together, and involved in a series of activities which are designed to lead to improvement of conditions in a particular community, or more broadly in society.

The term 'programme' is a very useful one in open learning and distance education, as it involves concerted and planned action and/or intervention. This usually occurs in a context in which learning takes place. ODL programmes normally involve a series of activities, undertaken by a number of people working together in terms of an area of service provision.

The activities and services provided have certain intended beneficiaries. They may also involve people with different vested interests, implying that the social and political dynamics involved in ODL programmes are often complex.

Evaluation designs often assume that

- ▶ programmes are purposeful activities (i.e. they are activities which are undertaken with a particular set of aims in mind)
- ▶ programmes are service-related (i.e. they involve a particular service or services provided to a particular set of beneficiaries)
- ▶ both purposes and intended results or outcomes are involved in the planning of programmes
- ▶ programme planning is usually based on a logical and systematic process, in which aims, activities, services and outcomes relative to beneficiaries are formally identified as the basis for a programme's work.

Aims, activities, services and outcomes relative to beneficiaries are thus assumed to form part of what is termed a programme's logical framework (which is also called its theory of implementation). Different aspects of a programme's logical framework are often used as organisers in both programme planning and evaluation.

### Programmes

- involve concerted action between people
- have purposeful activities
- are service-related in terms of the needs of beneficiaries.
- focus on change through service provision
- are based on a logical and systematic process of working to effect change.

## What is unique about ODL programmes?

Race (1994) suggests that open learning is indistinguishable from any other effective type of learning, though the conditions and environment surrounding the learning may be quite different. The aims of open learning are to:

- ▶ accommodate directly the ways in which people learn naturally
- ▶ open up various choices and degrees of control to learners
- ▶ develop learning materials which are learner-centred
- ▶ help learners to take credit for their learning, and develop a positive feeling of ownership over their successes
- ▶ help conserve human skills for things that really need human presence and feedback.

Many ODL programmes are based on a logic of using distance learning as a way of creating opportunities for greater access to education, as well as greater possibilities for learning at the learner's own pace. However, the form and structure of ODL programmes may vary considerably, as well as the ways in which distance learning strategies are used. There is also no guarantee that distance education programmes will be open, as will be evident from the following comment:

*"Open learning' is often used as synonymous with distance education, this being due to the British Open University's large international audience. The definitions 'open learning' and 'distance education' are not in themselves synonymous. Open learning means that the offer should be open in the widest sense of the word; open admission, greater freedom in the choice of how one wishes to carry it out, use of time, subject choice, type of examination etc. Different studies can be more or less open. Some distance education offers are extremely open and others closed." (SOFF, 1994, p. 30)*

For this reason, the term 'flexible learning' is often applied to ODL programmes (Race, 1994), as it implies a logical structure which is focused but adaptable to the different contexts and situations in which learners live and work. To enable greater learner-centredness, ODL programmes are usually characterised by an emphasis on using course development strategies which are based on clear specification of learning competences and outcomes. These are introduced through well-structured learning materials.

Given these characteristics of open or flexible learning, Melton (1997) suggests that in ODL programmes, evaluation needs to be an integral part of the course development process. It needs to have both formative and summative focuses, providing feedback on the products at each and every stage, and at a time when can be acted on and used to help improve the products before further developing them to the next stage.

### Main features of an ODL programme

- a commitment to open access, learner-centredness and flexible learning
- use of clear, well-planned learning resources
- use of a combination of distance education and contact teaching and support.

Melton thus suggests (1997: 107) that evaluation should be proactive and include three sequential stages:

- (a) Evaluation prior to the development of a course, concerned primarily with the identification of the needs of the target group and the type of course that might be developed to meet these needs.
- (b) Evaluation during the development of a course, concerned with providing feedback on the products emerging at each and every stage in the development process and intended to help improve those products.
- (c) Evaluation following the presentation of a course, that might contribute to the remaking of the course in part or whole at some subsequent time.

## Identifying the logical framework of an ODL programme

In terms of the commitment of many ODL programmes to providing a service to beneficiaries based on clear specification and testing of competences and outcomes, there are a number of terms which are useful to evaluators in analysing an ODL programme's logical framework.

### Activity 2 20 mins



Before undertaking the activity which follows, we would thus suggest that you write a definition of the words below. Use a dictionary and your *Glossary of Terms* to help you.

- 1 Activities
- 2 Services
- 3 Beneficiaries
- 4 Outcomes

*The feedback to this activity is at the end of the unit ►*

We are now going to look at the relationship between these aspects and how they can be used in evaluating the success of an ODL programme.

### Activity 3 30 mins



## Identifying a programme's purposes, activities, services and outcomes relative to beneficiaries

This activity focuses on the programme about which you have already read in Activity 1.

We have already noted that programmes normally involve certain types of activity, undertaken for a particular purpose, and related to the needs of certain intended beneficiaries. In this activity you will analyse a particular ODL programme to establish its

purposes, the activities undertaken by those involved in the programme, the services provided by the programme and the intended beneficiaries.

- 1 First, read through *Fentiman's* evaluation report in your *Resources File*.
- 2 Briefly describe the ODL programme Fentiman was evaluating, and the context in which the programme was operating.
- 3 State the purposes for which the programme was established, and the changes it was trying to effect.
- 4 List the programme's beneficiaries, and the places in which these persons lived.
- 5 Now identify the programme's activities. Identify the outcomes (intended benefits) the programme is working to achieve, with respect to the programme's beneficiaries.
- 6 Identify certain of the challenges encountered in programme implementation in the context in which the programme is operating. How will these affect the programme's ability to achieve its outcomes?
- 7 Next, using a single sheet of paper, list down the left hand margin the programme's activities (use a pencil to make your list so that you can look at what you have written, and rub it out and change it if you need to). When you have completed your list of programme activities, indicate next to each item on your list the people who were involved in providing each activity, and the people who were beneficiaries of the activity. The aim is to indicate what services were being provided in the programme and by whom.
- 8 Now list the intended outcomes or results of the programme, in relation to the people who would benefit from the programme's services. How did Fentiman use the relationship between purposes, activities, services and outcomes in evaluating what the SOMDEL programme actually did achieve?

*The feedback to this activity is at the end of the unit ►*

## What is a logframe approach to programme planning and evaluation?

Alicia Fentiman used what is termed a **logical framework** or **logframe** approach to evaluating the ODL programme about which you read in Activity 3. This approach assumes that there is a logical framework or theory of implementation for a programme. This approach is a particular type of evaluation which assumes that there is a logic which underpins both programme planning and implementation.

Chen (1991) refers to this logic as **the programme's theory**. What Chen is saying is that each programme has its own theory, and that the evaluator needs to establish whether the programme has a clear logic.

This is done by focusing on what the programme is trying to achieve and how it is using the resources with which it is working.

### Main features of a logframe approach

- focuses on the aims, objectives, outcomes, indicators, inputs and outputs of a programme
- focuses on the programme's logic or theory of implementation



The *Glossary* defines logframe as:

*'A results-orientated programme planning and management methodology. The approach helps to identify strategic elements (inputs, outputs, purposes, goal) of a programme, their causal relationships, and the external factors that may influence success or failure of the programme. The approach includes the establishment of indicators to be used for monitoring and evaluating achievement of programme results.'*

The approach is thus a particular form of evaluation which emphasises both programme theory or logic, as well as programme results. It attempts to identify the elements used to plan and manage programmes, and focuses in particular on the aims, objectives, outcomes, inputs and outputs of a programme. A variety of indicators are normally used as the basis for establishing the quality of a programme's work, and whether programme effects or results are being, or have been, achieved.

### What aspects of a programme are analysed when using a logframe approach to evaluation?

The evaluator using a logframe approach to evaluation analyses both the programme's rationale as well its plan of action.

The rationale is analysed by gathering information concerning the purposes of the programme and its aims. The plan of action is analysed by gathering information on how programme activities are implemented through the concerted action of a number of people.

For this reason, evaluators of ODL programmes will usually try to establish both how the programme's planning process has taken place, as well as whether the programme implements its plan effectively. As both the programme's rationale and its detailed plan of action are reflected in a programme's logical framework, it is often referred to as the programme's theory of implementation (Chen, 1991).

This implies that the evaluator using a Logframe evaluation approach attempts to tap into the programme's theoretical basis, and its logic in terms of cause and effect. The evaluation design involves an examination of the logical process followed in both a programme's planning and implementation, as reflecting the programme's theory of implementation. This framework then forms a basis for understanding both how the programme is conceptualised and planned, and how it is implemented in practice.

A Logframe approach to evaluation can thus be defined as:

*'An approach which attempts to base the evaluation of a programme on the logic or theory of the programme.'*

This is an important definition, as it introduces a number of terms relevant to planning, implementing and managing programmes. The terms most frequently used in this type of evaluation are aims, objectives, outcomes, indicators, inputs

and outputs. These terms form the basis for the type of evaluation to which we will introduce you in this handbook. For this reason, we will now examine each of these terms in more detail.

## Aims, objectives and outcomes

### What is an aim?

An aim is a broad statement of intent. It provides a general idea of what is intended in a programme, and the general direction a programme will follow.

The term 'aim' is a useful one, as it provides an idea of the conceptual direction of a programme, and may also provide information about the vision of the programme's planners, as well as the needs the programme has been set up to address.

However, as Race (1993) suggests, aims provide an idea of a programme's general direction, rather than the specific activities in which it is involved. For this reason, it is not really possible to use aims as the basis for testing out whether programmes (e.g. those involving learning) have been successful. To measure aspects of a programme's actual functioning, we need greater focus and more precision.

### What is an objective?

An objective is a more precise statement of intent – it states what the programme will achieve, in behavioural terms.

As objectives are both specific and measurable, they have a long history in programme evaluation, stemming back to the work of Tyler (1949). Tyler was the first evaluation theorist who proposed that programmes could be evaluated in their own terms. Tyler was also the first evaluation theorist who came up with a detailed methodology for how programmes could be evaluated (and measured) in terms of their own theory, and the logic of cause and effect based on the programme's own particular set of aims and objectives.

In ODL, objectives usually state what a programme aims to achieve in educational terms. Fullan (1992) suggests that education is concerned with change, while Rowntree (1982) suggests that objectives are useful ways of structuring programmes, as well as learning in particular. In an ODL programme, a set of learning objectives will normally attempt to describe as precisely as possible, what capabilities and dispositions a student will acquire, and in what ways he or she will grow through the educational experience.

## Why are aims and objectives important in programme evaluation?

Aims and objectives provide a focus for examining the type of needs a programme is trying to address, and the type of social change it is trying to achieve. As Kerr (1973) suggests, there are three main sources from which objectives can be derived: the needs of the learner; the state of society and the nature of knowledge. For this reason, objectives can be of many different kinds, and drawn from many areas relevant to educational and social development.

What is common to all objectives is that they are precise statements, which prescribe the direction of change in a precise way. A set of programme objectives will thus state what the programme will attempt to achieve, using verbs which capture precisely and in behavioural terms, what will be achieved if the programme is successful.

This implies an emphasis on intended changes, benefits or results. The United Nations Task Force on Rural Development (1984) defines objectives as

*'the desired results of development programmes and projects.'*

The reason for the continuing interest of programme evaluators in aims and objectives is that they provide a way of examining a programme systematically and in terms of specifics. This will be evident from the following activity.

### Programme aims and objectives should:

- reflect a programme's purposes, as well as its rationale (the gap in existing provision it is addressing)
- should have a clear relationship to the needs for the programme has been established
- should have a clear relationship to the programme's outcomes, benefits, achievements and results.

### Activity 4 45 mins



#### Identifying a programme's aims and objectives

When you looked at the *Fentiman* study you may have noticed that although Fentiman did not provide a list of the programme's aims and objectives in her report, she will have analysed them in order to establish the programme's logical framework.

In this activity you can follow the same steps as Fentiman in establishing the programme's logical framework:

- 1 Briefly describe the programme Fentiman evaluated, and its purposes.
- 2 State the aims for which the programme was established.
- 3 Now create a list of the programme's objectives, as you imagine these would have been presented to the programme's sponsors before the programme started. (Remember that a set of programme objectives needs to state exactly what the programme will attempt to achieve. Also remember that verbs need to be used in writing objectives which capture exactly what will be achieved in behavioural terms if the programme is successful.)
- 4 Next, using a single sheet of paper, list the types of evidence you would look for in the programme to establish if each of the objectives has been achieved in practice.

- 5 Now think through how you would actually conduct the evaluation. One commonly used way of designing an evaluation would be to use your list of objectives to organise your data collection and analysis. How could you do this, in this programme?
- 6 You have already thought through a number of other aspects of the programme's logical framework (purposes, activities, services and outcomes relative to beneficiaries). On what basis would you judge the programme as being successful?
- 7 How important would evidence about the programme's results be in forming your judgement about the value of the programme?
- 8 Would analysing and judging a programme in terms of its objectives be sufficient? If the objectives stated at the outset of the programme's work were not achieved, what would you conclude about the programme?

*The feedback to this activity is at the end of the unit ►*

## What is an outcome?

As indicated in the section above, there has been wide-spread use of objectives as organisers of educational programmes, and in the 1950s and 1960s this form of programme organisation was very common, and used to the exclusion of almost any other type of programme evaluation methodology. Ralph Tyler (1949), Hilda Taba (1962), Robert Mager (1962) and James Popham (1966) have been educational theorists associated with the development of approaches to using objectives to make teaching and learning more focused and systematic.

However, there has also been wide-spread criticism of objectives, as being potentially limiting and even destructive in education. From the perspective of curriculum, Peters (1966) and Stenhouse (1975), for example, have suggested that there are certain areas of knowledge which do not translate adequately into objectives. From the perspective of assessment, behavioural psychologists such as Skinner (1968; 1971) have claimed that many educational objectives are so general as to be unmeasurable.

Spady (2000) has thus suggested that there is a need for another form of organiser of educational programmes, which enables teachers and planners to be specific not only about what a programme aims to achieve on a behavioural level, but about its results.

In contrast to an objective which is a statement stating precisely what is aimed at, an outcome is a statement reflecting the results a programme actually achieves in practice.

In a social programme, an outcomes statement thus makes explicit reference to changes, benefits or results which will be achieved through the activities undertaken by the programme. In an educational programme, an outcomes statement makes explicit reference to changes, benefits or results which can be observed or measured in teaching, learning and education. This type of

### Outcomes

An outcomes statement states the changes, benefits or results which will be achieved as a consequence of the programme's activities.

An outcomes statement makes explicit reference to changes, benefits or results which can be observed or measured.

statement thus provides a precise kind of organiser, which is directly linked to observation and measurement.

The *Glossary* defines outcomes as 'the results of a programme or project'. The definition also indicates that there is a direct relationship between the actual benefits, results or achievements of a programme and the purposes or objectives for which the programme has been set up.

## How are outcomes used in planning and evaluation?

In emphasising the actual results of a programme rather than the purposes for which the programme has been set up, Andrich (1998) suggests that outcomes have a number of advantages over objectives when used as organisers of educational programmes. In outcomes-based education, for example, educational activities are directed by specified outcomes for students. These specifications, which emphasise intended benefits or results, can be used to direct the teaching and learning process. By being explicit about what is likely to result from an educational activity, outcomes can also be shared among all persons involved in the educational process, and used as the basis for evaluation.

With respect to ODL, Race (1993) suggests that outcomes are useful for planning and evaluating programmes. However, he cautions that the way in which learning outcomes are presented makes a considerable difference to how they are perceived by open learners. In a learning package, for example, effort should be made to ensure that outcomes are written in such a way as to address the learners directly. They should be personal, and provide precise information in measurable terms. This can then enable learners to establish what benefits involvement in the programme will bring them, through knowing what results their involvement in the programme will actually achieve.

In summary, an outcome is an achievement of an ODL programme which can be observed or measured. This is normally done by focusing on indicators of quality which can be observed, as well as tangible outputs which can be quantified or measured. Focus on inputs and outputs can then form a basis for planning and evaluation. Inputs will be used to specify the resources which are necessary to produce change, and outputs the specific and measurable aspects reflecting what programmes and learners in programmes achieve in practice.

## Indicators, inputs and outputs

We have referred to these terms in the previous paragraph, and it will be helpful to define them at this stage before proceeding further. The *Glossary* gives the following definitions:

### Outcomes

Outcomes reflect the intended results of a programme.

Outcomes should be stated in such a way that it is clear whether or not results are actually achieved.

Outcomes should have a clear relationship with indicators of changes achieved.

## An indicator

*'A quantitative or qualitative measure of programme performance that is used to demonstrate change and which details the extent to which programme results are being or have been achieved.'*

## Inputs

*'Resources which may be financial, human, technical, material and time, required to undertake activities and provided by stakeholders who may be donors, programme participants, communities or other groups.'*

## Outputs

*'Time-bound measurable or desirable changes produced by a programme. The term 'deliverables' is also used for outputs. Concrete results to be produced through sound management of inputs and activities, which are necessary to achieve the programme's purposes.'*

The distinction between indicators, inputs and outputs is an important one, to which we now turn. We will use two case studies to illustrate how indicators, inputs and outputs as organisers in conducting evaluations. We will then ask you to look at the distinction between these terms yourself.

## How are outcomes, indicators, inputs and outputs used in conducting evaluations of ODL programmes?

Up to this point in this unit, we have focused on defining certain key terms which underpin both planning and evaluation of programmes. We have looked at how these terms are defined by professionals working the field.

We have also looked in detail at one case study of a completed evaluation, so that you can see how these terms are applied in practice, in evaluations which examine the logic of cause and effect on which a programme's planning and implementation are based.

### Activity 5 1 hr 55mins



The terms outcomes, indicators, inputs and outputs are commonly used as organisers in evaluating programmes. In this activity, you are going to look at how these and other terms relating to a programme's logical framework or theory of implementation are used in practice by others in conducting evaluations of programmes.

This activity is based on two cases studies (see below):

An evaluation of an ABET programme

An evaluation of a radio learning programme in South Africa.

1 Take a sheet of A4 paper and draw the grid below:

Evaluation Organisers	ABET Evaluation	RLP Evaluation
Aims		
Objectives		
Beneficiaries		
Outcomes		
Activities		
Indicators		
Inputs		
Outputs		

- 2 Read the case studies and identify these aspects of the logical framework of both programmes.

*There is no feedback to this activity*

## Case study



### An Evaluation of an ABET Programme

In Lalage Bown's evaluation of the work of the UNISA ABET Institute's Programme (1999), particular emphasis was placed on discussion of impact and future strategies for the development of the programme. Bown used a Logframe approach involving use of multiple research methods in the evaluation, which was conducted over a short period of time in the field using a methodology involving observation, individual interviews, focus groups, questionnaires and analysis of project documents and materials.

One aim of the evaluation was to assess the effectiveness and efficiency of project implementation. Another was to evaluate project impact. A third was to provide ratings of the success of the project at goal, purpose, output and activity levels of the project's Logframe.

Bown used a number of indicators to provide evidence of change, as well as the quality of the programme's work. Growth in student enrolments as well as direct quotations from the comments made by programme coordinators, tutors as well as students were used as indicators of programme acceptance by stakeholders. Quantitative information in relation to the different levels of the cascade model was also provided, as indicators of programme growth and sustainability.

Bown used staff numbers as evidence of inputs, but did not provide detailed information on costs. To establish programme impact and effects, she focused on a number of outputs. She provided quantitative evidence that the programme had grown rapidly over a five year period. Indicators of expansion included a number of distance education courses and modules, numerical growth in student enrolments, and on growth in support provision in the different tiers of the programme's cascade model of service provision. Emphasis was also placed in the evaluation on indicators of quality and formative issues relating to programme

improvement. This more qualitative analysis was based on interviews, direct contact with the programme and scrutiny of the programme's materials.

## Case study



### **An Evaluation of a Radio Learning Programme in South Africa**

My own (Potter, 2003) evaluation of the Open Learning System Education Trust's (OLSET's) radio learning programme 'English in Action' in South Africa was also based on a multimethod approach. The OLSET programme had grown exponentially over a ten year period, and in 2003 broadcast daily interactive radio lessons to approximately thirty seven thousand classrooms involving one and a half million children across the country.

I was fortunate in having had a long-term prior involvement in the evaluation of the programme. This had been based on sustained and ongoing contact with the programme staff over a number of years. In terms of its large-scale operation and outreach, and the need for a summative evaluation of the programme at this point in its development, a Logical Framework (Logframe) approach to evaluation provided a way of evaluating the programme in terms of goals, purposes, outcomes, inputs and outputs.

The goals, purposes and outcomes of the programme were described on two levels. The first was on the level of the children in the schools, in terms of the improvement of their English. The second was on the level of the teachers, in terms of improved competence in teaching English.

In terms of its scale and the involvement of a number of stakeholders, inputs into the programme could be identified on a number of levels. International sponsorship provided the funds which enabled programme staff to do their work nationally and regionally. The funding also enabled the production of large amounts of materials to support the programmes at school and classroom levels.

Different stakeholders in the programme also provided different inputs. Radio lessons, supporting lessons, in-service training workshops and classroom visits were provided by OLSET staff. The provincial education departments provided inputs in terms of the involvement of a number of educational department officials who provided direct support to the work of the programme. Inputs were also provided by the national broadcaster (the SABC), in terms of both broadcast time as well as the support of its senior officials.

A number of outputs in terms of measurable or describable changes could be identified. At the level of the educational system, the outputs included growth in number of teachers and children involved in the programme and hours spent on task by children in the classroom in learning English as a second language. At the level of the children involved in the programme, the outputs included improvement in children's use of spoken and written English, and involvement in and enjoyment of the radio lessons. At the level of the teachers, outputs included involvement in in-service training to improve the quality of teaching provided in the classroom, and use of the OLSET broadcasts



and materials on a sustained and daily basis both in the English lesson as well as more broadly in other areas of the curriculum.

In terms of the programme's rapid growth and huge scale of operation, emphasis was placed on the evaluation of indicators drawn from the project's data base. These provided evidence reflecting growth in number of teachers and children involved in the programme, which could be objectively verified by checking. A number of other Objectively Verifiable Indicators (OVI's) relating to both inputs and outputs could also be identified. These included growth in number of regions covered by footprint of the radio broadcasts, number of radio programmes written and revised by the programme's writers, number of teacher support groups in each region, number of classroom visits, as well as quantity of material printed and number of schools having access to programme materials. Quality of service provided to beneficiaries could also be established through a number of other qualitative indicators, including documentary analysis, observation, interviews and focus groups, questionnaires and school-based case studies.

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### Why are aims, objectives, outcomes, indicators, inputs and outputs important in conducting evaluations of ODL programmes?

Both of the evaluations described in the previous section used a Logframe approach, in conducting an evaluation of a large-scale ODL programme. This type of evaluation, as you will recall from earlier in this unit, focuses on specific aspects of a programme's theory of implementation. The aims, objectives, outcomes, indicators, inputs and outputs of a programme are normally used as organisers and to provide specific focuses for evaluation, as these relate to the ways in which programmes are planned and managed.

It is also possible to use additional aspects relative to a programme's work (e.g. activities, services, beneficiaries and benefits, unintended achievements and results as well as wider implications of the provision of a particular service) as focuses in Logframe evaluations. What is important in evaluating ODL programmes is to identify the logic of cause and effect as this has been applied in the planning and implementation of a particular programme.

As the majority of programmes are formally and systematically planned, implemented and accountable in terms of a clear plan, this type of evaluation approach can be used both in evaluating large-scale programmes, as well as in evaluating small-scale programmes working in social and/or educational development. Aims, objectives, outcomes, indicators, inputs and outputs are used in this type of evaluation to enable the researchers to focus on specifics. This is important both in small-scale programmes, as well as those operating at large-scale.

Outcomes and outputs are particularly important in this type of cause and effect evaluation, as they enable the researcher to focus on a programme's results. Once outcomes have been stated, indicators of quality of learning and/or service provision need to be identified which are able to reflect the

type of results the programme is trying to achieve. Once indicators have been identified, programme managers can be asked for evidence relating to outputs which are specific, tangible and verifiable. They can also be asked to identify what inputs are being made and by whom, and how outputs relate to the inputs provided.

While the major focus of this handbook is on measurement of outcomes, it is important to remember that programmes involve the concerted actions of people. Those involved in programmes may have different needs and different values, which influence how they perceive the programme's value, and which outcomes they consider to be important.

It is to these issues that we now turn, in Unit 2.

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## Feedback to selected activities



### Feedback to Activity 1

Dr Alicia Fentiman of the International Research Foundation for Open Learning (IRFOL) conducted an evaluation of a distance education programme in Somalia. The difficulties she encountered as an ODL researcher were similar to those experienced in open and distance learning in many other parts of the developing world. She was not able to visit all areas of Somalia, owing to the unrest which prevailed in the southern areas of the country. She was also unable to speak the home languages spoken by the teachers and learners in the programme, relying on the services of interpreters. Nevertheless, she was able to review evidence about the programme and reach conclusions about its achievements, by focusing on a number of aspects of the programme's aims, developmental purposes, activities and outputs.

Fentiman focused on aims, objectives, developmental purposes, activities, outcomes and outputs as organisers in her evaluation. These are aspects which are common to the logical framework or theory of implementation of many ODL programmes. For this reason, they are often used as organisers in both programme planning and evaluation. They form the main concepts discussed throughout this handbook.

## Feedback to Activity 2

You will have noted from your definitions that there is a relationship between each of these different terms. The relationship is a logical one, based on the nature of the activities undertaken within a programme.

## Feedback to Activity 3

### 2 Describe the ODL programme

You should have been able to find suitable information in the summary section of the report from pages 4-7, and especially on pages 4 and 5.

### 3 The programme aims

The main aims of the programme are summarised in the report on page 4, paragraph 2. There is also relevant information on page 5. You could then supplement this with information from the programme's Logframe on page 11.

### 4 The beneficiaries of the programme

The primary beneficiaries of the programme would be learners. You will find information about numbers of learner beneficiaries and the regions of Somalia in which they lived at the top of page 5 in the report. There would also be likely to be benefits to families of learners as well as their communities, as well as other programme stakeholders such as government officials. These benefits would be likely to emerge from greater ease in working with literate, numerate communities.

### 5 The activities of the programme

You will find these in paragraph 2, page 4 of the report. You could then supplement this with information from the programme's Logframe on pages 12, 13 and 14.

### 6 The challenges

Here you might have used both contextual factors as well as factors relating to the educational background and languages used by learners in your answer. Contextual factors include:

factors relating to the geographical spread of the various regions in which the programme was operating

factors relating to the socio-political context of the country and in particular the war

factors relating to development and urbanisation in the country, e.g. the differences which literacy and numeracy will bring to learners on a practical level.

### 7 List of programme activities, people involved and beneficiaries

You might have used the Logframe on pages 11 to 14 for this purpose. You might have also considered the practical organisation likely to be involved in writing materials, broadcasting lessons, and providing support and backup to learners in the contexts in which they live and work.

### 8 Intended outcomes in relation to who will benefit

The findings and recommendations on pages 5-7, and also in Section 5 (page 27 ff) will have been useful here. You might have considered in particular how Fentiman would have used the information collected in the evaluation (pp 14-26) to establish whether the programme's outcomes (intended benefits or results) had actually been achieved as evidenced by firm and verifiable outputs in the form of actual achievements and results.

## Feedback to Activity 4

### 1 Brief description of the programme

For this task, we suggest that you examine the answers you provided to Activity 3, and then describe the programme's activities and purposes.

### 2 The programme aims

You will find the main aims of the programme summarised in Fentiman's report on page 4 paragraph 2. There is also relevant information on page 5. You could then supplement this with information from the programme's Logframe on page 11.

### 3 The objectives of the programme

To find the objectives of the programme, you need to look at its aims (page 4). The first aim is 'to ensure that people in difficult circumstances, particularly girls, have access to literacy, numeracy and life skills.' To write an objective or set of objectives relating to this aim, you need to answer the question 'At the end of the three year funding period for this programme, what should people involved in the programme be able to do?' Your answer should have three parts:

- ▶ a statement of the level of performance to be demonstrated
- ▶ an indication of the conditions under which the behaviour should occur

- ▶ details of any constraints which are likely to apply.

#### 4 The evidence

It may well be that you find it very difficult to write objectives, and that writing objectives takes a huge amount of time. Others have also found this, and in the 1970s there was a great deal of controversy about whether objectives were actually a help or a hindrance in planning an evaluating programmes. Certain writers also shifted positions on the issue.

Scriven (1967), for example, has suggested that in evaluating programmes, if a set of objectives is not available for a programme, the evaluator should write them down before commencing the evaluation. Writing a few years later in 1973, Scriven suggested that it was possible to conduct evaluations if you disregarded objectives and focused on what programmes were actually achieving in practice.

One reason for suggesting this is that focusing on intended benefits or results of a programme is generally less time consuming and difficult than writing a set of behavioural objectives. Given how much time this takes, one may question whether the effort and time taken in writing objectives is actually worth it. You may have found this in this activity.

#### 5 How you would conduct the evaluation

Given how much time it takes too write objectives, one issue you will need to consider is whether you want to use objectives or outcomes as organisers in evaluating this programme, or whether you want to use both terms as organisers in combination.

Authors such as Spady (2000) and Andrich (1999) suggest the value of the term 'outcomes', in preference to 'objectives' in planning and evaluating programmes. Outcomes are defined as the intended benefits or results of a programme. Like objectives, outcomes can be specifically stated.

In evaluating a programme, intended benefits or results can be related to actual benefits, results and achievements. Outcomes are thus often used in preference to or in combination with aims and objectives, in collecting data.

#### 6 How you would judge the success of the programme

Many evaluators use a number of aspects of a programme's logical framework or theory of implementation in combination when judging a programme's success, e.g.

- ▶ aims, objectives and outcomes can be used to state the purposes and intended benefits or results of a programme
- ▶ judgement of the value or worth of the programme is then based on analysis of whether intended benefits or results are related to actual benefits, results and achievements.

Judgement of the value or worth of a programme is also based on whether resources or inputs have been effectively used in producing outputs in terms of actual benefits, results and achievements.

### 7 The importance of the evidence

If a programme's logical framework or theory of implementation is used as a basis for judging the value of a programme, actual benefits, results or achievements are important criteria for judging programme effectiveness and success.

### 8 Would analysing and judging a programme in terms of its objectives be sufficient?

This would depend on the purposes of the evaluation.

Formative evaluations are those which are undertaken with the purpose of identifying areas of the programme which require improvement. If objectives or outcomes were not achieved, a formative evaluation would attempt to establish why this was the case, and how the programme should alter its way of working. This might involve either changing the programme's theory of implementation or its strategies for implementation, or its actual implementation.

Summative evaluations, in contrast, normally attempt to examine whether a programme has achieved its goals. A summative evaluation will normally involve formal examination of programme results against programme purposes, and a statement of whether the programme has value or worth.





# Involving stakeholders in programme planning, implementation and evaluation



## Unit overview

Given the types of change ODL programmes attempt to achieve and the teamwork involved in distance education, it is necessary to involve different stakeholders in the processes adopted in planning, implementing and evaluating ODL programmes. This unit suggests ways of designing evaluations which can answer the evaluation questions considered important by different stakeholders, and of collecting evidence from stakeholders relevant to a programme's activities and outcomes.

## Learning outcomes

When you have worked through this unit, you should be able to:

- 1 Indicate why it is important to involve programme stakeholders in programme planning, implementation and evaluation.
- 2 Identify ways of involving programme stakeholders in programme planning, implementation, and evaluation.
- 3 Establish the types of information programme stakeholders need about a programme,
- 4 Establish the types of information programme stakeholders can provide about a programme,
- 5 Apply these concepts in planning, implementing and evaluating a new ODL programme relevant to the context in which you work.

As with Unit 1, the purpose of Unit 2 is to introduce key concepts and terms, and then to examine how these concepts and terms apply in practice. The key concepts covered in this unit will be:

- ▶ programme stakeholder
- ▶ working with stakeholders in planning, implementing and evaluating programmes.

## Programme stakeholders

Programme evaluation normally focuses on different aspects of a programme's planning and implementation. As ODL programmes are normally concerned with change, it is necessary to measure outcomes considered important by the programme's stakeholders.

The term 'stakeholder' was proposed by Robert Stake (1975) to refer to persons with different vested interests in a programme. Stake was concerned with developing forms of programme evaluation which could be responsive to the needs and values of persons with potentially different backgrounds, perspectives and value systems.

The *Glossary* defines stakeholders as:

*'People, groups or entities that have a role and interest in the aims and implementation of a programme or project. They include the community whose situation the programme seeks to change; project staff who implement activities, project and programme managers who oversee implementation; donors and other decision-makers who influence and decide the course of action related to the programme; and supporters, critics and other persons who influence the programme environment (e.g. target groups and beneficiaries).'*

Programme stakeholders in an ODL programme are thus persons who have a vested interest in a programme's work and the changes it is trying to achieve. Stakeholder interests are important as programmes take place in a particular context, involving teams of programme staff as well as particular groups of beneficiaries. Due to contextual and socio-political factors, both ODL programmes and evaluations are often politically charged. They thus may be difficult to implement in practice, due to the values and/or vested interests of those involved in the programme.

### What are stakeholder groups?

There are normally a number of persons involved in, and/or with a vested interest in, an ODL programme. Different stakeholder groups in ODL programmes include learners, teachers, sponsors, educational planners and officials as well as other key actors such as parents, spouses or relatives of learners.

Each of these groups has a potentially different vested interest in enabling a programme to work effectively, and a potentially different perspective on ensuring that a programme works successfully. These different vested interests often reflect different values and perspectives which need to be taken into account in planning and implementing a programme.

For this reason, stakeholder perceptions as well as needs are relevant to the evaluation of ODL programmes. As the Norwegian Executive Board for Distance Education at University and College Level comments (SOFF, 1994:44):

*'Each individual distance education project is based upon team-work. In contrast to many distance education students, distance education teachers are seldom alone. With the planning, developing and carrying out of distance education there may well be a need to form working groups. Some will have different areas of knowledge, some different progressions and some will come from different institutions. Therefore the groups themselves and the way they work are an important basis for evaluation.'*

Stakeholders often make particular resource inputs into ODL programmes in financial and/or human terms, and it is important for the evaluator to attempt to establish from different stakeholder groups what resources they provide and use, and to quantify the costs involved. Stakeholder perceptions can also be tapped to provide different types of information and evidence about a programme's outcomes, in terms of benefits, achievements or results.

## Identifying stakeholder needs for information

The issue working with stakeholders in ODL is particularly important as different stakeholders may have very different views on what is important in planning, implementing and evaluating a particular programme. They may have differing perceptions concerning programme needs, what are important aims, objectives and outcomes, what are important inputs, and what are important programme outputs or effects. They may also have different views as to the questions the evaluator should ask, the type of information which would be valuable, and how an evaluation should be conducted.

In essence, programme planners, researchers and evaluators working in ODL need to be sensitive to the fact that different perspectives about programmes often exist, and to take account of stakeholder needs and values in planning programmes, and in conducting research or evaluation studies. The links between programme planning, implementation and evaluation will be clear from the activity which follows:

### Activity 1 45 mins



#### Developing a new ODL programme: from needs assessment to programme planning and evaluation

*Zobaida* works with an international non-governmental organisation in Dhaka whose aim is to increase access to basic education for girls in Bangladesh in a culturally sensitive way.

*Zobaida* conducted a study which aimed to identify needs for a basic education programme in the regions in Bangladesh where school enrolment was lowest.

To do so, she examined enrolment figures and then conducted interviews with out-of-school girls in regions where enrolment figures were lowest. This was done to establish whether girls who had not had the advantage of formal schooling would see the need for a basic education programme, and whether they felt that others would support a basic education programme if this was implemented in the region in which they lived.

*Zobaida* analysed the data from the interviews, looking for common trends and themes. She then put report on her findings for her director, who was delighted with her work. He asked *Zobaida* to make an oral presentation of her work to potential donors in two months time. Over the period leading up the presentation, he worked with *Zobaida* to draw up a programme plan, and a budget they could present to the donors.

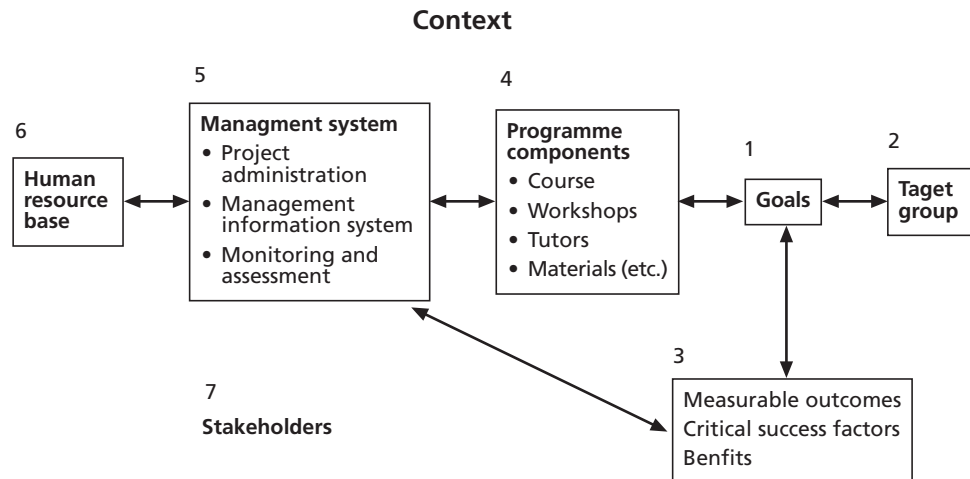
- 1 List the aspects of *Zobaida's* research you feel she should stress in her presentation to the donors.
- 2 List the needs you feel an ODL programme in basic education should address.
- 3 Make a list of the questions you would include in interviews with out-of-school girls, to establish what they perceive as needs for an ODL programme in basic education.
- 4 What would you need to include in the programme plan to address the needs you have identified? What aims would you state relating to the needs you have identified? What would be the programme's outcomes in terms of benefits, achievements and results?
- 5 Assuming that the donors like the idea of the programme you are proposing and decide to fund it, what aspects of the programme would need to be evaluated? What type of information concerning the programme do you think the donors would want to be given? What type of evaluation questions would they want answered?
- 6 Now identify all the other stakeholders in the programme. What type of information concerning programme inputs would these different stakeholder groups be able to provide? What type of information concerning the programme's outcomes do you think the different stakeholder groups would want to be given? What type of evaluation questions would they want answered?
- 7 How would you work to achieve the cooperation of all the programme's stakeholders in the evaluation? How would you work to ensure that their different evaluation questions (and your own) would be included in the evaluation design?

*The feedback to this activity is at the end of the unit ►*

## Involving stakeholders in programme planning

In the previous activity, we focused on the importance of ensuring that a programme's aims address clearly identified needs. Without clear needs, it is unlikely that resources in the form of money, programme personnel and teachers will be well utilised. It is thus important to be able to describe needs, aims and objectives the aims of a programme specifically, so that it is clear to donors and other programme stakeholders what the programme is attempting to achieve, and how it relates to the needs it has been set up to address.

Babbie and Mouton (2001) suggest that programmes have a number of common elements (Figure 1). These elements normally need to relate to each other for the programme to work effectively.

**Figure 1 A conceptual map of a programme**

Source: p. 343, Babbie, E. and Mouton, J. 2001 *The practice of social research*, Cape Town: Oxford University Press in South Africa

It will be clear from the above diagram that a programme's stakeholders are an important element in a programme. Besides providing differing perspectives and perceptions relating to needs, involving stakeholders in the process of programme planning can be helpful in ensuring that aims and objectives are clearly related, and likely to meet the needs of the target group. Stakeholders can provide valuable perspectives on programme needs, activities as well as benefits, achievements and results. They can also provide evidence about whether a programme is successful in meeting its objectives.

Time spent in working with stakeholders is time well spent when planning ODL programmes, as well as when planning ODL evaluation, and that it will normally bear dividends in

- ▶ establishing the cooperation necessary to implement the programme
- ▶ establishing that the programme is capable of evaluation
- ▶ ensuring that the evaluation questions are appropriate
- ▶ ensuring that information and evidence relevant to evaluating the programme's outcomes is available and can be accessed
- ▶ creating the necessary climate for information concerning the programme's outcomes to be gathered, analysed and then reported, in ways that ensure that the evaluations findings and recommendations are useful, and then subsequently acted on.

Stakeholders can assist the programme in various ways. Without clear stakeholder support of the purposes for which the programme has been established and the needs it will address, it is unlikely that resources in the form of money, programme personnel and teachers will be well utilised. It is also important to be able to describe the outcomes of a programme specifically, so that it is clear what results the programme is attempting to

achieve. This needs to be done in a form so that it is clear to stakeholders how the programme's resources translate into benefits, achievements and results.

## Involving stakeholders in programme evaluation

We have provided you with an evaluation workbook in your *Resources File* (Potter – Workbook) to which you may want to refer at this point. The workbook has been used by a number of evaluators both as a starting point for evaluation courses, as well as a starting point for a number of programme evaluations. It is in its third edition and has been reprinted a number of times. Those who have used it have also found it useful as the first step in gaining the cooperation of different stakeholders in the evaluation process.

The workbook starts by defining evaluation, as a way of defusing potential negativity towards programme evaluation as an activity. The reason for doing so is that certain stakeholder groups may regard the evaluator as potentially dangerous to their particular vested interests in the programme, and may believe that the evaluation will involve some form of assessment of them personally.

To prevent the hostilities which can emerge if those involved in a programme regard evaluation as a threat, a view is provided of evaluation as a process of information gathering and information dissemination. The focuses of evaluation lie on providing information in relation to a set of evaluation questions about the programme, as opposed to judging the work of people.

After providing a variety of definitions of evaluation, participants are then asked to develop their own definition, based on what they believe evaluation to be, and to share this conception with a partner. Once each person has engaged with this activity, the concept of different stakeholders in a programme is then introduced. This is done with a view to involving different stakeholders to start analyzing their own information needs, as well as the information they can provide about a programme.

The issue of basing the evaluation on questions which relate to stakeholder needs for information is then addressed. The workbook concludes with a model of the process involved in data collection and analysis, and the process thereafter of drawing inferences from the data, as the basis for judging the programme's value.

## Developing a strategy for gaining stakeholder cooperation

We would now like to suggest that you look through the evaluation workbook we have provided in your *Resources File*. Consider in particular whether the workbook material could help you in working with stakeholders, to:

- ▶ clarify their understandings of what evaluation is
- ▶ suggest practical ways in which an evaluation can assist them in meeting their needs for information about the programme, and
- ▶ gain their cooperation in working with you, providing you with information where necessary and enabling you to gather the data you need.

It may be helpful if you have this open next to you as you read through this section. We will take you step by step through a process we have found helpful in involving community groups, students, teachers, programme personnel, programme managers as well as educational officials in the programme evaluations we have conducted.

Imagine a scenario in which an evaluation of a particular ODL programme has been suggested. There are a number of different stakeholder groups, including donors, programme staff, teachers, learners and their parents. We will now take you through the steps we normally follow in using the evaluation workbook to develop ongoing contact with these stakeholder groups.

After taking the evaluation brief, suggest the value of a workshop on evaluation to those who have briefed you, with a view to discussing the current evaluation with programme staff and with programme stakeholders.

This type of suggestion is normally welcomed. The reason for this is that a workshop will enable the evaluation to be discussed by the programme staff, as well as other stakeholders involved in the programme.

There is also normally some negotiation about who should attend this type of meeting, which is normally put together by those involved in implementing the programme. There may be a suggestion that there should be more than one workshop (e.g. different meetings with different groups of stakeholders). Express openness to whichever meeting format is suggested by those involved in the programme, but at the same time find out why the particular format has been suggested.

Indicate to those organizing the meeting that you intend to first discuss evaluation as a process, as a prelude to discussing the particular evaluation you have been asked to do. Also indicate that you will be using a workbook as a way of introducing concepts about evaluation, which will then be discussed with participants.

Prepare for the workshop by printing sufficient workbooks to enable all those involved in the meeting to have their own copy. Prepare neat overhead transparencies, using colour, on which the main points relevant to each page of the workbook are represented. The last slide should be the model of evaluation at the end of the workbook.

Arrive early on the day and if possible start the workshop on time. Initiate the process clearly and purposefully, by stating that you are going to give some formal input about evaluation to start with, and then distribute the workbook.

Put up your first slide (which has on it the three questions on the first page of the workbook), and indicate that you are going to be addressing the questions of what evaluation is, who evaluation is for, and how evaluation is conducted.

Then ask the participants to turn the page in their workbooks, put up your next slide and work through each of the definitions of evaluation that follow. Then introduce the activity in which they are asked to create their own definitions of evaluation, and discuss these with a partner. Then introduce the concept of stakeholders in a programme, and the activities which relate to this. It is normally tea-time by the time participants are busy with the process of undertaking a stakeholder analysis, which participants normally enjoy.

It is thus normally logical to interrupt this activity, and resume it after tea. After report-back and discussion, there is normally a presentation by yourself of the model of data collection, analysis, inference and judgement. The workshop then logically leads on to discussion of their own programme (i.e. the programme you are being asked to evaluate) in the activities at the end of the workbook.

Our experience of this evaluation workshop method is that it has a number of positive effects, enabling the development of a relationship between evaluator and those involved in the programme:

- ▶ it draws away from issues relating to any particular programme evaluation, and makes it clear to the audience that the focus of the workshop is in evaluation as a field
- ▶ it makes it clear to the audience that evaluation is an activity relating to the value and worth of a programme, rather than involving an assessment or judgement of them as individuals.
- ▶ it makes it apparent to the audience that there are differences of opinion concerning the nature of evaluation, and that this is acceptable. It also makes it clear that their active participation has been solicited in the workshop, and by implication that their own views are important.
- ▶ it draws initial attention away from discussion of the particular evaluation you have been asked to conduct, and focuses it rather on exploring different perceptions of evaluation as a process and as a field.

Discussion of the particular evaluation you have been asked to do (about which there may be anxiety, strong feelings and perhaps disagreement) may, however, arise at any point in the workshop. If so, the issues will either need to be discussed when raised, or deferred. The participants in the workshop can be asked which option they would prefer.

Our experience has been that it is likely, given the fact that there is a clear place for this type of discussion as the last activity in the workbook, that the participants will take the decision to focus on their own evaluation at a later rather than earlier point in the workshop process. Participants are normally



curious about evaluation as a field, and may normally opt for this type of input and activity first, and discussion of their own evaluation later.

The advantage of this is that normally, by the time issues concerning the evaluation you have been asked to do are raised, participants will have some idea of what you are like as a person, based on your handling of the workshop process. You will also have a better idea of them as people, based on the experience of working cooperatively with them in activities which require their participation, and yours.

### Involving stakeholders in setting evaluation questions

After these aspects have been discussed with those involved in a programme, an understanding of the process involved in an evaluation is normally established. Once this has been achieved with a particular stakeholder group or groups, the issue of formulating evaluation questions which address stakeholder needs for information can then be addressed, as these apply in the programme being evaluated.

This is then done in a follow-up meeting. The aim is to ensure that stakeholder groups have the opportunity to be involved in the evaluation, through asking appropriate evaluation questions, which can then be answered through the evaluation process. The evaluator's role is then introduced in terms of the information needed.

Though the process of working with different stakeholder groups varies considerably in different programmes, it is usually possible to engage cooperatively with those involved in the programme. It is also possible for the evaluator to be viewed by programme stakeholders as a person with the skills and ability to enable appropriate information to be gathered, analysed and then disseminated.

If this type of cooperative engagement is clearly not possible, this has implications for whether the evaluation is do-able, whether the programme is capable of evaluation, and whether the evaluation will be successful. As Hoyle (1971) has pointed out, programmes normally focus on change, while evaluation normally focuses on monitoring change. It is very difficult to undertake programme development or evaluation successfully with those who are resistant to participating in the activities involved in change.

### Drawing on the skills and resources of stakeholders

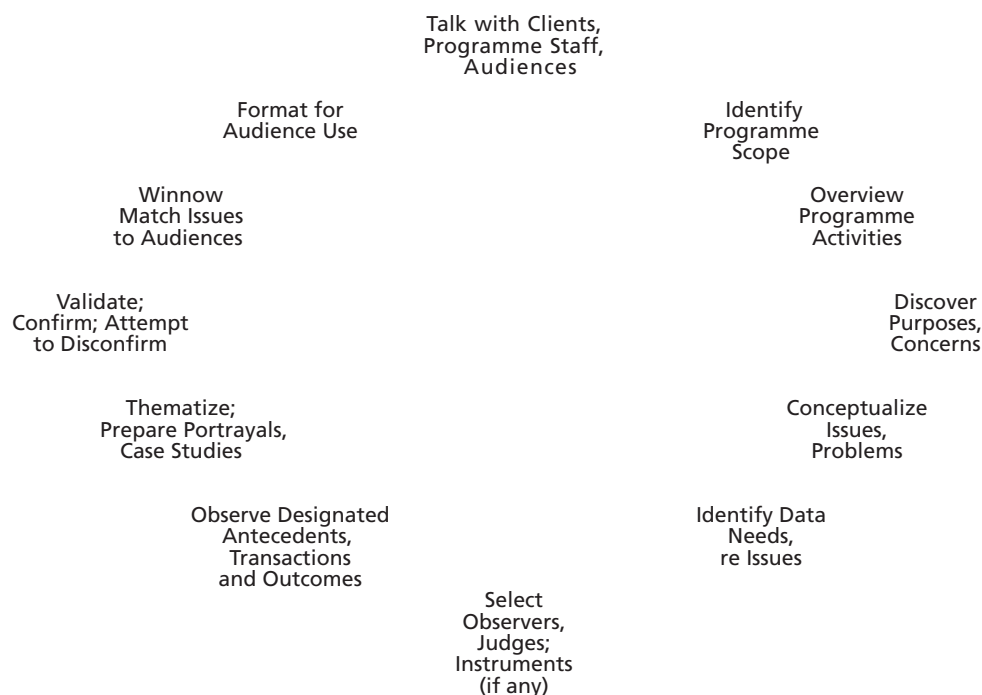
One reason for focusing stakeholder issues in this unit is that programmes are normally complex, involving a variety of people who may or may not share the same culture and values. The term 'stakeholder' has thus become widely used in both programme planning and evaluation, as a way of referring to persons with different vested interests in programmes, whose values need to be accommodated in the research process.

Different stakeholder groups in ODL programmes include learners, teachers, sponsors, educational planners and officials as well as other key actors such as parents, spouses or relatives of learners. Each of these groups has a potentially different vested interest in enabling a programme to work effectively, and a potentially different perspective on ensuring that a programme works successfully.

Owing to issues of value diversity, different stakeholders in a programme may also have different needs for information about the programme, and whether it is meeting its objectives. Researchers working in ODL need to be sensitive to the fact that different perspectives about programmes often exist, and to take account of the politics behind these differing needs and values in planning research or evaluation studies.

Robert Stake (1975; 1983) and Carol Weiss (1979) have suggested ways of working with programme stakeholders based on their informational needs, as well as the types of resources, skills and information they can provide. Stake has provided a model of evaluation (called ‘responsive evaluation’) based on twelve stages, as follows:

**Figure 2 Prominent events in a responsive evaluation**



Source: Stake, R. 1983.

Stake suggests that responsive evaluation is based on a commitment to respond to stakeholder interests, concerns and issues, and can commence at any of the twelve points in Figure 2 above. A responsive evaluation has a number of characteristics:

- ▶ it orientates towards programme activities as opposed to programme aims
- ▶ it responds to audience needs for information

- ▶ it refers to the different value-perspectives of stakeholders in reporting the success or failure of the programme.

In essence, Stake suggests that there is value in evaluator and stakeholders becoming partners in the evaluation process, and comments (1983: 81):

*'The evaluator will discuss many things on many occasions with the programme staff and with people who are representative of his audiences. He will want to check his ideas of programme scope, activities, purposes, and issues against theirs. He will want to show them his representations (e.g. sketches, displays, portrayals, photographs, tapes) of value questions, activities, curricular content, and student products. Reactions to these representations will help him learn how to communicate in this setting. He should provide useful information. He should not only pander to desires for only favourable (or only unfavourable) information, nor should he suppose that only the concerns of evaluators and external authorities are worthy of discussion.'*

### Why is stakeholder involvement important in conducting evaluations of ODL programmes?

Involvement of stakeholders can add depth and breadth, as well as skills and resources to the evaluation of an ODL programme. The reason for this is that stakeholders often have insider knowledge about a programme, and can usually also provide information and evidence about how a programme uses its resources, and about its benefits, achievements and results. They may also be in a position to identify specific aspects of programme activities which can be identified, observed, measured or assessed.

Programme evaluators can involve stakeholders in an evaluation on a number of levels:

- ▶ There may be particular types of information which different stakeholders may need from the evaluation, and which they may find useful.
- ▶ They can be asked to contribute evaluation questions which enable these informational needs to be met.
- ▶ There may be particular types of information which different stakeholders have about the programme's activities which may be useful for the evaluation
- ▶ They can be asked in particular to contribute to the evaluation by providing information about the resources the programme uses in undertaking its activities (programme inputs), as well as information concerning benefits, achievements and results of programme activities (programme outputs).

This type of information can be used both in its own right as well as to substantiate and verify data on the programme provided from other sources.

In terms of quantitative data, contact with stakeholders can normally provide the evaluator with information about the frequency, duration and extent of the programme's activities. It can provide the evaluator with quantitative information on use of programme resources, as well as programme benefits, achievements and results. It is also often possible to quantify evidence concerning the skills and resources different stakeholders provide as inputs into a programme.

In terms of qualitative data, stakeholder contact can yield indications concerning the way in which the programme's activities are organised, as well as the quality of the process of programme implementation. In addition, there are qualitative indicators of programme sustainability in the ways in which the programme involves its stakeholders in programme planning and implementation.

## Developing a strategy for tapping stakeholder perceptions

Different stakeholders may have very different views on what is important in a particular programme. They may have differing perceptions concerning programme needs, what are important aims, objectives and outcomes, what are important inputs, and what are important programme outputs or effects. They may also have different views as to the questions the evaluator should ask, the type of information which would be valuable, and how an evaluation should be conducted.

Programme planning and evaluation are particularly complex where different stakeholders have differing needs, as well as differing vested interests in the programme. For programme planners, it is necessary to develop a strategy for tapping stakeholder perceptions, which can reveal whether there are potential value differences which may affect programme implementation. For programme evaluators, it is important to tap stakeholders perceptions about the programme, and whether it is meeting its objectives.

In addition, programme stakeholders often provide particular inputs into programmes either indirectly in the form of hours of work, personal commitment and support, or directly in physical or human resources, and/or financial assistance. Programme planners and researchers working in ODL need to be sensitive to the need to record these inputs accurately, as a way of understanding how the programme works in practice, and how its work is supported and sustained.

In addition, it is important to develop a strategy for tapping different perspectives about the programme, which need to be established to enable the evaluator to take account of differing needs and values in planning and implementing the evaluation. Stakeholders can also provide valuable information based on perceptions about the value of a programme, since they normally have direct experience of the programmes activities. They can thus

provide information about the programme's benefits, achievements and results.

This can be used as evidence that the programme is successful in addressing the needs for which it has been established, and for measuring outcomes.

## Activity 2 45 mins



### Stakeholders

This unit has focused on why it is important to involve different stakeholders in ODL in the processes of needs assessment, programme planning, implementation, and evaluation. It has suggested the value of identifying the skills and resources different stakeholders provide as inputs into a programme, as well as the different types of information and evidence stakeholders can provide about a programme's achievements or results. It has also suggested ways in which stakeholder involvement can influence the processes adopted in planning, implementing and evaluating ODL programmes.

The main focus of discussion has lain on including stakeholders in the evaluation of ODL programmes. However, there is also value in considering stakeholder perceptions and needs when planning a new programme. This is the focus of this activity.

### Tasks

- 1 Write down your definition of a programme stakeholder. Try to do this in a few sentences. You may find it helpful to think about all the different stakeholders involved in a programme you have read about (e.g. the ODL programme evaluated by Fentiman) or an ODL programme in which you have been previously involved.
- 2 Next, fold a single sheet of paper so that you create a left and right hand column. Think about a new ODL programme (e.g. a particular ODL programme which is needed, or a particular ODL programme you would like to develop).
- 3 Now list in the left hand column all the different programme stakeholders (i.e. persons with a vested interest) in the ODL programme. Identify whether each stakeholder is an individual person (e.g. a sponsor of the new programme) or consists of a group of persons (e.g. the learners in the new programme).
- 4 In the right hand column provide a short comment on what you think the vested interest of each stakeholder in the programme is likely to be.
- 5 Consider each of the different stakeholders in turn. What type of support is the new programme likely to get from each stakeholder.
- 6 Now consider what you are going to need to stress in your proposal to funders. What is the purpose of the programme? What are the aims? What are the objectives (NB these need to be stated in behavioural terms).
- 7 Next, we would like you to consider the service you will be providing in the programme. What does the service entail, and who are the beneficiaries? What are the

outcomes (achievements) you consider relevant to the programme being perceived to be successful by different stakeholders and stakeholder groups?

- 8 How will the programme be evaluated? What type of information will each stakeholder want from the evaluation? What type of information will each stakeholder be able to provide about the programme and its activities?
- 9 Now consider where there are likely to be common information needs among different stakeholders. Are all stakeholders likely to want information in relation to programme outcomes and outputs? Are all stakeholders going to want information relating to the quality of the service provided by the programme? What indicators of quality will each stakeholder consider to be acceptable?
- 10 At this point you are likely to have an idea as to whether the stakeholder needs are likely to be common or reflect diversity or potential disagreement. Based on this information you are now ready to start planning the ODL programme.

*The feedback to this activity is at the end of the unit ►*

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## Follow-up to the unit

As follow-up to the unit, you might like to:

- show your colleagues the stakeholder analysis you have conducted and discuss the way you have mapped the different stakeholders' vested interests and information needs. Ask whether your colleagues' views about different stakeholders would be similar to your own.
- suggest ways of working with programme stakeholders based on their informational needs, as well as the types of resources, skills and information they can provide. Ask whether your colleagues can suggest ways in which stakeholder involvement could influence the processes adopted in planning, implementing and evaluating the proposed new ODL programmes
- suggest ways of working with programme stakeholders in identifying specific aspects of programmes which can be identified, observed, measured or assessed. Ask whether your colleagues can suggest ways of working with programme stakeholders based on their informational needs, as well as the types of resources, skills and information they can provide.

## References and further reading

- Babbie, E. and Mouton, J. 2001 *The practice of social research* (south African edition), Cape Town: Oxford University Press Southern Africa
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Stecher, B. and Davis, W. 1987 *How to focus an evaluation*, Newbury Park, CA: Sage Publications

Weiss, C. 1998 *Evaluation: methods for studying programs and policies* (2nd ed), Upper Saddle River NJ: Prentice Hall

## Feedback to selected activities



### Feedback to Activity 1

- 1 The aspects of Zobaida's research to be stressed in her presentation to the donors

*Zobaida* should stress that her research has involved a needs assessment, and has been based on both quantitative and qualitative evidence. School enrolment figures indicate that there is a gap in educational provision. The interview data provide evidence of how the gap in provision is perceived by out-of-school girls, and also that a new programme addressing the gap in provision would be supported by out-of-school girls, who perceive a need to further their basic education.

### 2 The needs of an ODL programme

You will need to draw on your knowledge of basic education programmes to answer this question. You will also need to imagine the likely background of programme beneficiaries.

Consider first the beneficiaries of a basic education programme:

- ▶ think about their likely areas of need, which are likely to involve needs for literacy, numeracy and life skills

- ▶ specify where the programme beneficiaries are likely to work (e.g. in the market-place; at home; in the farming cooperative), and apply the skills they learn in the areas in which they work
- ▶ now specify how the skills they learn are likely to be applied. What are programme beneficiaries going to need to be able to do after they have completed the programme?

### 3 The purposes of the basic education programme

Think first of the types of programme in this area which you already know. Think of its purposes and focuses. Then consider whether the programmes you already know should be adapted or be designed differently, to meet the needs of the beneficiaries you have in mind.

### 4 The interview questions

To establish their perceptions of needs for the basic education programme, you would need questions in each of the following areas:

- ▶ the likely areas of need in the areas of literacy, numeracy and life skills
- ▶ where they will apply the skills they learn in the areas in which they work
- ▶ how the skills they learn are likely to be applied – what are programme beneficiaries going to need to be able to do after they have completed the programme?

### 5 The contents of the programme plan

The best way to do this is to first consider what programme beneficiaries would need to be able to do after they have completed the programme. This will enable you to state the aims and the outcomes (intended benefits or results) of the new programme.

Then consider what you would need to include in the new programme. When you have completed these steps you are ready to plan the new programme in detail.

### 6 Aspects of the programme would need to be evaluated

To answer this question, we would suggest that you use the programme's logical framework as the basis for your evaluation plan. The reason is that if you have proposed a new programme which aims to address certain needs, and which will be working to achieve certain outcomes (intended benefits or results), the donors will want information as to whether you have achieved what you set out to do, and provided the benefits you set out to provide.

It would thus be important to state evaluation questions which enable you to provide information to the donors on the actual results achieved by the new programme, and whether the results were achieved in a cost effective way.



This is the basis of a Logframe evaluation, which focuses on programme aims, objectives, outcomes, indicators, inputs and outputs.

## 7 The stakeholders

Besides programme donors, there are other people who also have a vested interest in the programme, and whether it achieves its results in a cost effective way. These persons include programme beneficiaries, programme staff as well as others who are involved in the programme's development in different ways (e.g. community members; members of board of trustees of the programme).

We refer to these people as programme stakeholders. Often they have different informational needs. One way of figuring out what their informational needs are likely to be is to consider what their vested interest in the programme is (i.e. why they are interested in the programme). Then think through the types of questions they will want answered in an evaluation.

## 8 Achieving the cooperation of all the programme's stakeholders

There are various evaluation models which are based on what are called stakeholder approaches to evaluation. These suggest ways of working with stakeholder groups so that their informational needs are met through including them in the process of setting the evaluation questions, as well as in the process of providing and sharing information on the programme.

The rationale behind these approaches is to involve stakeholders as much as is possible in evaluation design, providing data on the programme and in reporting of information from the evaluation, on the rationale that this will increase the likelihood that the evaluation's findings will be useful, and the evaluation recommendations implemented.

Useful references on evaluation approaches which involve stakeholders in the process of evaluation design and implementation are:

Stake, R. (1983), Guba, E. and Lincoln, Y (1989) and Weiss, C. (1998).

## Feedback to Activity 2

### 1 Your definition of a programme stakeholder

Weiss (1998) defines stakeholders as 'Those people with a direct or indirect interest (stake) in a program or its evaluation. Stakeholders can be people who conduct, participate in, fund, or manage a program, or who may otherwise affect or be affected by decisions about the program or the evaluation.' This definition is a comprehensive one, which you may want to use in your own evaluation practice. The definition we have provided is shorter 'Those people with a vested interest in the development of a programme.'

## 2 Think about a new ODL programme

The position we take is that any developmental activity needs evaluation. Think about an area in which an ODL programme is needed, and by implication there is also an evaluation which is needed.

## 3 Stakeholder list

Think about an area in which an ODL programme is needed, and then use Weiss's; definition (refer the answer to 1 above) to tease out all the stakeholders in a new ODL programme in this area.

## 4 Vested interests

Here you need to consider how each particular stakeholder is likely to be positively or negatively affected by the ODL programme, and also how this particular stakeholder is likely to be positively or negatively affected by an evaluation of the programme. You will then have an idea of what the politics of programme development and evaluation in this area are likely to be.

## 5 Support from stakeholders

Stakeholder interests can be used to support programme development and evaluation. Knowledge and understanding of stakeholder interest can be used as a way of gaining the support of key stakeholders. This is likely to be the case if the programme, or the evaluation, supports stakeholder needs or vested interests.

## 6 Points to stress to funders

Many donors and funders have funding priorities, which represent the areas of society in which they believe their funding will have maximum effects. Knowledge of these can assist you in choosing a donor or funder who is likely to support your programme. This is likely to be the case if the aims and objectives of your programme coincide with the funders' or donors' priorities.

## 7 Service to be provided

Here you will need to focus on programme beneficiaries as a particular stakeholder in the new ODL programme. You will need to think through carefully the activities in which the new ODL programme will be involved, and whether this service will lead to results which benefit programme beneficiaries. Weiss (1998) refers to this as 'results-based accountability', which she defines as 'holding programs accountable not only of the performance of activities but also for the results they achieve.'

## 8 How will the programme be evaluated?

Sensitivity to stakeholder interests can be helpful in designing a programme evaluation. It may be helpful not only in conceptualising appropriate evaluation questions, but also in conceptualising the types of data sources and indicators

to use in answering the evaluation questions, as well as where and how these data can be found and collected. The cooperation of those involved in a programme in the evaluation is important, as the evaluation is unlikely to be doable without this. Stakeholder interests need to be considered not only in terms of the information they need, but also the information they can potentially provide about a programme and its development.

## 9 Common information needs

Stakeholder interests also need to be considered on the political level. It may be possible to involve programme stakeholders more fully in developing the evaluation. Weiss (1998) refers to a stakeholder evaluation as 'a study in which stakeholders participate in the design, conduct and/or interpretation of the evaluation.' The issue of whether a particular evaluation design is likely to be acceptable and supported by stakeholders is a key consideration in the decision concerning how far stakeholders can be involved as allies in conducting the evaluation, as well as whether the evaluation is doable.

## 10 Common/diverse stakeholder needs

Stakeholder involvement in programme planning, implementation and evaluation requires considerable skill on the part of the evaluator. Programmes and evaluations in which stakeholders are highly involved are likely to be very different to those in which involvement of programme stakeholders is minimal. How far you are able to involve stakeholders in these processes is likely to affect not only how evaluation is conducted, but also how useful the evaluation is perceived to be, and how the evaluation findings and recommendations are utilised.



# Establishing aims, objectives outcomes, indicators, inputs and outputs



Unit 3 focuses on the evaluation design in planning research or evaluation studies in ODL. It suggests ways of focusing an evaluation by establishing a programme's logical framework or theory of implementation (how the purposes of ODL programmes relate to needs, and how a programme's implementation strategies and activities relate both to its purposes and its outcomes). It also suggests procedures for developing an evaluation design based on stakeholder priorities, and of establishing specific and objectively verifiable indicators of the effectiveness, success and value of a programme.

Unit Three thus builds on concepts introduced in both Units One and Two. It is designed to be completed in roughly five hours.

## Learning outcomes

When you have worked through this unit, you should be able to:

- 1 Analyse programme documents in order to establish an ODL programme's logical framework.
- 2 Develop an interview schedule for use with programme staff and stakeholders to determine evaluation priorities, issues and questions.
- 3 Analyse a completed evaluation study to establish how aspects of an ODL programme's logical framework or theory of implementation (and in particular a programme's aims, objectives, activities, and outcomes) can be applied in evaluation design.
- 4 Develop an evaluation design table summarising the aims, objectives, outcomes, activities, evaluation questions, indicators, samples of evidence and instruments used to evaluate an ODL programme.
- 5 Use these aspects of a programme's logical framework or theory of implementation to develop the detailed evaluation methodology necessary to measure outcomes.

The purpose of Unit 3 is to demonstrate how key concepts and terms introduced in Units 1 and 2 are applied in the process of evaluation design.

The key concepts covered in this unit will be:

- ▶ use of aspects of a programme's logical framework as organisers in evaluation design
- ▶ use of stakeholder priorities, issues and questions as organisers in evaluation design.
- ▶ aims, objectives, outcomes, activities, evaluation questions, indicators, samples of evidence and instruments objectives as inter-related elements in evaluation design
- ▶ objectively verifiable data as intrinsic to credible evaluation.

## The purposes of programme evaluation

Programme evaluations track the efficacy of social programmes, in human and social terms. They draw on many different theories of social development, as these are applied in the programmes being evaluated.

One purpose of programme evaluation is to focus on these theories, which are implicit in the planning and implementation of a social programme. A number of theoretical insights can be gained from analysing the ways in which those involved in a particular social programme go about their work, the issues with which they deal, and how they confront these issues. This evidence is often highly relevant to developing or substantiating social theory.

However, the central goal of programme evaluation is not theoretical, but rather to answer specific practical questions about social programmes and their development. The focus of the majority of programme evaluations is on practical issues relevant to the value and improvement of a programme's work.

Evaluations can be commissioned for different purposes, and to answer different types of questions. These questions relate both to a programme's logical framework and theory of implementation, as well as to stakeholder priorities. Evaluations normally focus on issues and questions relating to programme planning and implementation, in terms of outcomes and quality of service provided.

## Focusing an evaluation

Before information on a programme can be gathered, a process of focusing an evaluation is necessary, as the basis for developing appropriate data collection strategies and procedures, and finding or developing the instruments used to measure outcomes.

Stecher and Davis (1987) suggest that there are three distinct elements in the process of focusing an evaluation:

- 1 establishing existing beliefs and expectations
- 2 gathering information

### 3 formulating an evaluation plan.

After formulating the evaluation plan, implementation of the evaluation follows. The processes involved in evaluation implementation normally involve the gathering of evidence about the programme and its activities. This evidence is then used to describe what the programme does, as the basis for identifying difficulties or problems in the programme's work, or for purposes of adjudicating or judging the programme's value or worth.

## Establishing existing beliefs and expectations: what are the purposes of the evaluation?

Prior to establishing a detailed design and methodology, it is important to establishing client beliefs and expectations, in order to establish at the outset of an evaluation what the purposes of the evaluation are.

Besides establishing the perceptions and needs of those sponsoring the evaluation, beliefs and expectations of other programme stakeholders concerning the evaluation are also tapped. The reason for this is that there may be differing beliefs and expectations relating both to the aims and purposes of the evaluation, as well as concerning what the evaluation will be able to achieve in practice.

In order to focus the evaluation, the evaluator will also gather information about the programme's logical framework. At the outset, a process of gathering information concerning the programme and its activities thus takes place. This is directed both at understanding the nature of the programme, as well as the nature of the issues and questions which the evaluation needs to address.

Once these have been agreed and the scope of the evaluation decided, an evaluation plan is then developed. This details the focuses and methodology of the evaluation, and the aspects of the programme which will be observed and measured.

## Establishing informational and accountability needs: why has the evaluation been commissioned?

In practice, many programme evaluations are conducted on contract, being commissioned either directly by donors (the people who provide the funds to run a programme), or in response to donor requirements for information about programme effectiveness. The evaluation brief often includes a specific request for particular kinds of evidence, and in particular for quantitative evidence concerning programme outcomes.

One reason that many evaluations focus on aims, objectives, outcomes, indicators, inputs and outputs is that there is normally an accountability requirement in a programme. Stakeholders, such as programme donors, or those involved in managing programmes thus need information about whether a programme is meeting its objectives, and justifies the funds which

### Programme evaluation focus

In focusing a programme evaluation, it is important to establish:

- evaluation purposes
- evaluation priorities
- evaluation issues
- evaluation questions.

have been devoted to its development. The purpose of this type of evaluation is normally to examine evidence concerning programme implementation and outputs to establish whether the programmes aims, objectives and outcomes have been met. For this reason the majority of published evaluations have been based on this type of evaluation approach (Lipsey *et al.*, 1985).

However, there may also be additional purposes, focuses and issues relating to an evaluation. Certain of these may relate to how the programme is working and whether the approach used in the programme is the correct one. Others may relate to issues relating to programme improvement. Some may relate to relationships within the programme or relationships between the programme and its stakeholders. Some may be stated directly in the evaluation brief.

Others, however, may not.

It is thus important for the evaluator to establish at the outset what the expectations, priorities and issues relating to the evaluation are, in order to establish what type of evaluation is needed, and which type of methodology is likely to meet the requirements of the evaluation brief. It is also important to establish whether the evaluation is do-able, in relation to these expectations, priorities and issues.

## Gathering information about the programme: what is the programme's logical framework?

As an evaluator, the aims, objectives and outcomes of a programme are important elements in understanding the programme's implementation theory. Examination of the programme's aims and objectives enables the evaluator to identify why the programme takes the particular direction it does, why it undertakes particular activities in relation to particular beneficiaries, and which outcomes (changes, benefits, results and achievements) have been prioritised in programme planning and implementation. How programme resources have been obtained and applied in practice in achieving programme outputs can also be understood in terms of the outcomes the programme has prioritised in terms of its aims and objectives.

Aims, objectives, outcomes, indicators, inputs and outputs are normally used in conjunction to describe a programme's logical framework, as each of these aspects of the programme relate directly to the data gathering, observation and measurement procedures which will be included in the evaluation design. In the design, whether the programme actually achieves results in practice will be determined through use of indicators, which provide evidence as to whether changes, benefits, achievements and results have actually occurred in practice.

In applying a Logframe approach to evaluation, it is important to consult stakeholders as part of the process of identifying the programme's theory, establishing how a programme operates as an entity, and why it has been set

### Aims, objectives, outcomes and programme activities

Aims, objectives and outcomes represent both a programme's purposes and its intended results.

Programme activities represent what the programme does to implement its logical framework in practice.



up in a particular way. One reason for this is that stakeholders can normally provide information about needs and the programme's rationale (the gap in existing provision for which it has been established). Stakeholders can usually also provide information about the programme's activities, and whether the programme is implemented in such a way that needs for the programme are directly addressed.

### How has needs assessment influenced the aims and objectives of the programme?

An analysis is normally undertaken of how needs for the programme have been identified, as the basis for setting of aims and objectives, and the detailed planning of the programme. One reason for this is that this enables the evaluator to gauge how the process of planning for the programme has been conducted.

The approach to needs assessment recommended by a number of authors (e.g. Alkin, 1969; Stufflebeam, 1973; Rossi and Freeman, 1985; Shaughnessy and Zechmeister, 1995) is that programme planners need to focus on existing provision in a particular area, as the basis for establishing whether a new initiative or intervention is necessary. This can be done by considering the following questions:

- ▶ Why is the programme necessary?
- ▶ What is wrong with the existing situation?
- ▶ What do the programme's stakeholders want to change?
- ▶ What do they want to be different?

In practice, the process of needs assessment is often an informally conducted process, rather than involving an extensive field-based study. Needs assessments are also often ongoing. For this reason, the evaluator may find that they have not been formally written up, but are referred to as part of the programme's fund-raising proposals or initial planning documents.

These documents are thus usually a good place for the evaluator to start in getting to know a programme's purposes and activities, and how these relate to needs. Interviews with programme staff and stakeholders can then be conducted, for the purposes of gathering additional information about the programme, and how needs have been addressed in the programme's logical framework.

### How can programme documents be used as the basis for identifying the programme's logical framework?

As indicated in the previous section, formal needs assessment documents, or an up-to-date statement of programme aims, objectives and outcomes may not be available to a programme evaluator. If this is the case, one way to

establish a programme's logical framework is to work backwards from what those involved in programmes write about their work. This can be done using programme reports or documents written for accountability purposes (e.g. progress reports to the programme's donors or sponsors). These documents are normally readily available within a programme.

Analysis of existing programme documents and reports focuses first on the programme's purposes, and then on its outcomes. This can be done by focusing first on what is written about the programme's activities, to identify the purposes (i.e. the aims, objectives) which underpin the programme's activities. Once an idea has been gained of how a programme's purposes relate to its activities, the focus turns to identifying the benefits, achievements and results of the programme.

Once these aspects of a programme's logical framework have been identified, the evaluator will have an idea of the programme's model of implementation. The relationships between different elements in the programme's logical framework can then be clarified and probed through interviews with those involved in planning and implementing the programme. Interviews can also be conducted with other stakeholders to identify and substantiate other aspects of the cause and effect model being followed in the programme, and how this translates into action.

We will ask you to try and do this in the next two activities. First, you will be asked to work from a programme's documents to establish an ODL programme's activities and purposes (i.e. its aims, objectives and outcomes). You will then be asked to develop interview schedules to clarify and probe different aspects of the cause and effect model being followed in implementing the programme.

## Activity 1 45 mins



### Identifying a programme's logical framework from programme documents

An evaluator may arrive at a particular site and not find an up-to-date statement of aims, objectives and outcomes readily available. Programme staff members are normally very busy people, and to ask them to spend large amounts of time in accessing or creating a list of aims and objectives for you at the outset of an evaluation may interfere with developing the type of cooperation necessary for the evaluation process to succeed on other levels. It may therefore be wise for the evaluator to familiarise him or herself with the programme's logical framework by working from programme documents.

We are now going to work with a programme description written by Marg Beagley, of the Open Access College in Australia, to establish the programme's activities, and from this to try and identify the logical framework of the programme.

You will find *Beagley's* description of the Open Access College in your *Resources File*.

- 1 Focus first on the information about what the programme does, in relation to the audiences with which it is working.
- 2 Take a sheet of paper, and divide it down the middle into two columns. List the programme's activities in the left hand column. Next to each activity write an aim (i.e. what you think the purpose of the activity is) in the right hand column.
- 3 When you have made a list of aims or purposes for the different activities undertaken by the programme, read through Marg Beasley's document again, and see if you can identify any other aims and purposes in those sections which relate to current priorities and problems. List these out, and make a list of the aims which relate to these current priorities.
- 4 The list of ongoing activities provide you with clues to the long-term aims of the programme and the needs it has been set up to address, while the current priorities provide you with clues as to the way in which the long-term aims are currently being changed or refined to meet currently perceived needs.
- 5 You can now use your list of long-term aims and current priorities in a number of ways:
  - \* to construct a detailed list of objectives relating to the programme (i.e. exactly what the programme is attempting to achieve in practice)
  - \* to identify the types of outcomes relating to the programme (i.e. what results or achievements are likely to result if programme objectives are met)
  - \* to identify indicators for each outcome (i.e. what types of evidence or data will indicate whether results or achievements are actually occurring in practice)
  - \* to identify those aspects of the programme's Logframe (and in particular programme inputs and outputs) on which you would like to obtain further information. The aspects of the Logframe on which you need further information can then be explored through interviewing programme staff, and other stakeholders in the programme.

*The feedback to this activity is at the end of the unit ►*

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## Making contact with programme staff and stakeholders

Carol Weiss (1983) has commented that one of the first things the evaluator needs to do is to make contact with programme staff and stakeholders to establish who wants an evaluation, and why it has been commissioned. One reason for this, as House (1973) suggests, is that there are normally stakeholder interests which are involved. Another practical reason is to establish contact with, and the cooperation of, programme stakeholders.

It is thus important in focusing an evaluation to meet at an early stage with programme staff and stakeholders. This initial contact will focus on clarifying aspects of the programme's logical framework, and gathering information about who wants the evaluation and why it has been commissioned. The evaluator will also attempt to establish stakeholder expectations, priorities and issues.

This information will then inform the decisions which will be taken in the evaluation design, about:

- ▶ what kind of evaluation is needed
- ▶ the evaluation questions and data sources on which the evaluation will be based
- ▶ the types of indicators, samples of evidence, instruments, data collection and data analysis and verification procedures which will be followed in implementing the evaluation.

## Using interviews to explore stakeholder expectations, priorities and issues

Guba and Lincoln (1989) have suggested that evaluations are best organised to address issues and answer evaluation questions. In establishing the purposes of an evaluation and its focuses contact with different stakeholders provides a valuable way of identifying the important issues and questions an evaluation should address, well as establishing client needs and expectations. The evaluation process then essentially involves information transmission and communication between evaluator and different stakeholder groups.

Guba and Lincoln further suggest that the evaluator attempt to establish the claims, concerns and issues of stakeholders as the basis for conducting evaluation:

- ▶ a **claim** is a statement made by a particular stakeholder about a positive aspect of a programme's development or its achievements and results
- ▶ a **concern** is statement made by a particular stakeholder about a negative aspect of a programme's development or its achievements and results

### Initial contact

Initial contact with programme staff and stakeholders aims to:

- clarify aspects of the programme's logical framework
- establish evaluation purposes, priorities and issues
- establish what kind of evaluation is needed.

- an **issue** is a statement about which different stakeholders, or different stakeholder groups might hold different views, or on which there would be disagreement.

Let us consider how this could be done through interviews, with respect to an evaluation of the Open Access College in Australia. You have already gained an initial idea of the programme's logical framework through documentary analysis. Interviews with programme staff and other stakeholders can now be used to explore aspects of the programme's Logframe on which additional information is necessary. Stakeholder contact can also be used to establish evaluation priorities and questions, as the basis for developing the evaluation design.

## Activity 2 1 hour



### Exploring the Logframe: Identifying evaluation priorities through stakeholder interviews

Imagine you have been appointed as the evaluator of the Open Access College, and that you have arrived for work on the first day. After making the acquaintance of the rector of the college, you have been taken on a tour of the college buildings and have met the programme staff. You are now spending your first evening planning out your evaluation.

You have already analysed a programme description written by Marg Beagley, and have a basic idea of these elements of the programme's logical framework (i.e. the programme's cause and effect model). You realise that the activities undertaken by the College can provide you with verifiable evidence of what the programme does. In addition, what has been written about these activities can provide you with evidence about what the programme has been set up to do.

For this reason, you have already created a list of what Open Access College does, in relation to the audiences with which it is working. You have also constructed a list of aims, objectives, outcomes and indicators.

What you do not know is whether the list you have created is complete and accurate. You also need information on the programme's inputs in terms of available resources and outputs in terms of actual achievements and results.

Above all, however, you would like to meet programme staff and programme stakeholders, in order to establish the claims they make about the programme, and concerns and issues about the programme's work. These are likely to indicate priorities for evaluation.

- 1 Draw up a list of the questions you would like to ask, in order to get the type of additional information about the programme's logical framework you need. When you have listed the questions you would like to ask, create three interview schedules:
  - The first for use with the rector and senior administration of the College.
  - The second for use with programme staff.

- The third for use with programme beneficiaries.
- 2 In addition to questions about aspects of the programme's Logframe, add additional questions to each of your interview schedules to establish what management, programme staff and programme beneficiaries consider to be:
- claims, concerns and issues relevant to the programme's development
  - the priorities which the evaluation should address
  - the issues on which the evaluation should focus
  - the evaluation questions they would like to see answered.
- 3 Management, programme staff and other stakeholders are likely to be busy people. Long interviews are also generally non-productive. Check each of your interview schedules to ensure that:
- You have asked your questions in a logical order.
  - You have not asked too many questions.
  - Each question is brief, clear and phrased in such a way that it can be easily understood.
  - You have included space for additional questions in which you can probe for additional information where necessary .

The interviews you will conduct are not too long, and will take no longer than an hour.

*The feedback to this activity is at the end of the unit ►*

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## Formative or summative evaluation?

Once the programme's logical framework has been established, and the central evaluation questions have been identified, these then form the basis for a detailed evaluation plan, which focuses on the data sources, indicators and instruments which form the data collection and measurement strategies for the evaluation. In developing an appropriate evaluation design, there are a variety of possible approaches an evaluator can employ, and a number of different evaluation models on which a programme evaluator can draw (Worthen and Saunders, 1987).

After meeting with programme staff and other stakeholders, the evaluator needs to decide what type of evaluation is needed, based on what stakeholders want from the evaluation. The reason for this is that evaluations can be planned in a number of different ways, and can be accomplished using a variety of methodologies and procedures (Posavac & Carey, 1997).

The particular type of evaluation required will normally reflect the stage of development of a programme (Rossi & Freeman, 1985; Shaugnessy & Zechmeister, 1997), as follows:

### Needs assessment

This type of evaluation is usually conducted by means of surveys or situational analyses undertaken by means of questionnaires, interviews and observation, to determine a particular area of need requiring intervention. It often also incorporates analyses of documents or archival data, as well as analyses of previous research or evaluations of the work of other programmes in the area in which intervention is likely to take place.

### Programme planning

This type of evaluation focuses on the process of programme conceptualisation and on the feasibility of programme plans. It usually examines programme aims and purposes and whether these relate to needs, as well as programme policy and whether the intervention as planned is feasible.

### Formative evaluation

This type of evaluation focuses on the process of programme implementation. It usually incorporates a process of programme monitoring, to establish whether the intervention is being implemented as planned. In formative evaluation, the evaluator attempts to identify aspects of the programme which are working well, aspects of the programme which are problematic, and aspects of the programme requiring modification or improvement.

### Summative evaluation

This type of evaluation has a retrospective focus, and involves an attempt to establish the outcomes, effects or impact of the programme by observation or measurement. Summative evaluations examine evidence relating to indicators of programme effectiveness, and for this reason often incorporate quasi-experimental or ex post facto research, as well as some form of cost-effectiveness or cost-benefit analysis.

Each of the above types of evaluation is based on different assumptions and will typically involve a different type of design (Scriven, 1967). Evaluations conducted for summative purposes while a programme is being implemented, for example, address different kinds of evaluation questions, involve different types of analyses, and yield different types of information to needs assessments conducted prior to a programme's inception, or to formative evaluations conducted as an integral part of the process of programme planning.

## What type of evaluation design will suit this particular programme?

In practice, the majority of programme evaluations are conducted for either formative or summative purposes, or for a combination of formative and summative purposes. In formative evaluations, the aim is to look developmentally at the effectiveness of the programme. Observational and descriptive research, as well as pilot studies may be helpful in identifying areas in which aspects of the programme are working well and areas that require improvement.

Summative evaluations are typically more formal in character, and focus on whether anticipated outcomes have actually been achieved.

For this reason, summative evaluations often focus on aims, objectives, outcomes, indicators, inputs and outputs (i.e. the Logframe of a programme), implying an emphasis on the cause and effect relationships in programmes, and whether programmes are meeting their objectives.

Fitz-Gibbon and Morris (1987: 11–14) comment as follows:

*'The summative evaluator is supposed to produce a public statement summarizing the program's achievements. Since this report could affect important decisions about the program's future, the summative evaluator needs to be able to back up his findings....The very best summative evaluation has all the characteristics of the best research study....The critical characteristic of any one evaluation study is that it provide the best possible information that could have been collected under the circumstances, and that this information meet the credibility requirements of its evaluation audiences.'*

In deciding which evaluation design is most likely to meet client requirements, Stecher and Davis (1987) suggest that there are five commonly used evaluation approaches. Each is based on different focusing issues, and addresses different kinds of questions, as in Figure 3.

### Meeting client requirements

Formative evaluations are conducted for purposes of programme improvement.

Summative evaluations are more formal, and conducted for purposes of accountability.



**Figure 3 Five Approaches to Evaluation (Stecher and Davis, p 40)**

Approach	Emphasis	Focusing issues	Evaluator's role
Experimental	Research design	What effects result from programme activities and can they be generalised?	Expert/scientist
Goal-oriented	Goals and objectives	What are the programme's goals and objectives and how can they be measured?	Measurement specialist
Decision-focused	Decision making	Which decisions need to be made and what information will be relevant?	Decision support person
User-oriented	Information users	Who are the intended information users and what information will be relevant?	Collaborator
Responsive	Personal understanding	Which people have a stake in the programme and what are their points of view?	Counsellor/facilitator

It will be evident from Figure 3 that the methodology of an evaluation will vary depending on the purposes of the evaluation, and the issues and questions it addresses. The focuses of a particular evaluation design and the techniques used in conducting the evaluation are also likely to vary according to client needs. As Scriven (1967) has observed, there are a variety of different goals for evaluation, as well as a variety of roles an evaluator can take on. The type of evaluation approach used in a particular evaluation will vary, depending on client needs, expectations and assumptions about evaluation, as well as the assumptions, research skills and preferred approaches of the programme evaluator (House, 1983).

## Developing an evaluation design

Stecher and David (1987) suggest that it is up to the evaluator to select a methodology based on those research techniques which are appropriate in a given situation. The effective evaluator is one who is capable of bringing together an appropriate methodology to fit the needs of the client. The effective evaluator is also one who can play different roles (e.g. expert, collaborator, decision support person or facilitator) as appropriate in different situations.

Prior to formulating a detailed plan for data collection and measurement, the evaluator will normally try to establish a list of appropriate issues and questions, which will form the focuses of the evaluation and which the evaluation will address.

The evaluation questions then form organisers for the evaluation design as a whole.

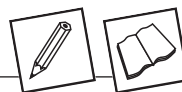
Essentially, the process of evaluation design involves deciding on the data sources, indicators, samples of evidence and instruments which can be used to answer the evaluation questions. Procedures for data collection and for data analysis and verification also need to be specified.

### Evaluation designs

The process of evaluation design involves specifying the data sources, indicators, samples of evidence and instruments which can be used to answer the evaluation questions, as well as the methodologies used in data collection, organisation and analysis.

Let us follow the process of evaluation design step by step in the following activity.

### Activity 3 45 mins



#### Developing an evaluation design table

The process followed in establishing the focuses of an evaluation will vary according to the purposes for which the evaluation is being conducted, as well as the stage of development in a particular programme. This is illustrated in the evaluation of the Open Learning Systems Education Trust's 'English in Action' programme in South Africa.

The first stage in this evaluation involved an assessment of the potential of the programme at a pre-pilot stage by Stuart Leigh (1992). Leigh's evaluation is described in a short three page excerpt (Potter, Arnott, Hingle, Mansfield, Mashishi, Mentis and Nene, 1995). This is included with your resource materials in your *Resources File* (Parts 1-4 in the *Potter et al* reading)

We would suggest you first read all three pages of Leigh's evaluation, and then look in particular at Sections 2 and 3. Section 2 is called 'The Pre-Pilot Phase (March to June 1992)' and Section Three 'Problems Raised at the Pre-Pilot Phase'. Once you have read through these two sections in detail, answer the questions below.

- 1 What were the aims of Leigh's evaluation? (You will find information on the aims of the evaluation in paragraph 3 on Page 1 of the evaluation report). Was it conducted for needs assessment, programme planning, formative or summative purposes, or for a combination of these purposes?
- 2 Who wanted the evaluation? Do you think it was commissioned by the developing organisation (OLSET), or for an outside sponsor, or for other stakeholders (e.g. the beneficiaries of the programme), or was it conducted for the evaluator's own purposes?
- 3 How were stakeholders such as teachers, principals and children involved in the evaluation? How were stakeholders such as the programme's management and its donors involved in the evaluation?
- 4 Now create a table with eight columns as follows:

Aims and objectives	Outcomes	Programme activities	Evaluation questions	Data sources	Indicators	Samples of evidence	Instruments

- 5 Fill in the details for Leigh's evaluation of the pre-pilot stage of the 'English in Action' programme. You may find it easiest to start with programme activities (e.g. materials writing, production and taping of radio lessons, delivery of these to the classroom, activities involving children and teachers, and follow-up activities). Then work backwards from these to work out columns 1 and 2.
- 6 Then write down the evaluation questions which you think Leigh would have used to establish whether the programme was working effectively.

- 7 Finally, work out the data sources, indicators, samples of evidence and instruments Leigh would need to use to answer the evaluation questions. You may also find it helpful to first think about the types of evidence or data sources you would need to use to answer each evaluation question. Then focus on the specific indicators, samples of evidence and instruments on which you would base the collection of evidence about the programme.

*The feedback to this activity is at the end of the unit ►*

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## Developing a coherent evaluation design

The previous activity focused on the way in which an evaluation design links programme aims, focuses and priorities to evaluation aims, focuses and priorities. It also focused on the way evaluation questions are linked to the sources of evidence needed to answer them, and in turn to the indicators, samples of evidence and instruments necessary to measure programme outcomes.

In concluding this unit, issues relating to the coherence of the design will be explored, by focusing on the relationships between evaluation questions, data sources, indicators, samples of evidence and instruments.

A coherent evaluation design is one in which the following elements are clearly linked:

- evaluation questions
- data sources
- indicators
- samples of evidence
- instruments.

## Linking data sources to evaluation questions

The methodology of an evaluation essentially involves collecting and analysing the types of quantitative and qualitative evidence which can answer evaluation questions. The following data sources are commonly used in evaluating ODL programmes.

- interviews with teachers
- questionnaires with teachers
- interviews and focus groups with learners and/or programme beneficiaries
- programme documents
- direct observation at programme sites
- observation of learners in the classroom

- ▶ analysis of learners work
- ▶ course tests and assessments
- ▶ parent interviews
- ▶ parent focus groups
- ▶ parent questionnaires.

You may have listed some of the following in column five of your evaluation design table and considered how each of the data sources links with the evaluation questions, as well as different aspect of the programme's logical framework.

Programme documents, for example, can be analysed to provide an idea of the programme's purposes (i.e. its aims, objectives and outcomes), as well as other aspects of the programme's theory of implementation. However, programme documents are only one source of information about a programme's theory. It needs to be borne in mind that those who write programme documents and programme reports are normally programme stakeholders.

As such, they may have a vested interest in representing what takes place in a programme in a particular way. Other stakeholders might represent what was taking place in a different way.

It is thus important for an evaluator to treat documentary analysis of a programme's aims, objectives, outcomes, indicators, inputs and outputs as one source of evidence, and as a starting point. In addition to what programme staff members have to say about the programme, other stakeholders (e.g. those who represent the interests of the programme's management; the programme's donors; the programme's beneficiaries; those who represent communities affected by the programme's work) can also provide extremely valuable information on how the programme is resourced, as well as on programme effects and effectiveness.

For this reason, many programme evaluators use what are called multitrait multimethod approaches in conducting evaluations. This implies that an evaluator will examine a number of aspects of a programme's development in answering the evaluation questions, will examine various sources or data in relation to these aspects, and will use a number of different research methods to collect and analyse their data.

This implies that they will supplement one data source or type of analysis with other forms of analysis, and with other sources of information. Commonly used data sources include interviews and/or focus groups conducted with programme staff and beneficiaries of the programme, as well as observation of the programme in action.

These sources of evidence can yield valuable information both about inputs into a programme in terms of human, physical and monetary resources, but

#### Multitrait multimethod evaluation designs:

- use evidence from multiple data sources, indicators, samples of evidence and instruments
- supplement one data source or type of analysis with other forms of analysis, and with other sources of information.

also about outputs in terms of tangible programme results and achievements. The perspectives of other stakeholders on programme activities can also yield potentially valuable information on the different actors involved in the programme, how programme activities are directed and organised, who provides inputs and in what form, and what the effects or results of particular inputs are.

## Linking data sources to objectively verifiable indicators

You will recall from Unit 1 that an indicator is defined as:

*'A quantitative or qualitative measure of programme performance that is used to demonstrate change and which details the extent to which programme results are being or have been achieved.'*

You will also recall that the term 'objectively verifiable indicator' or 'OVI' is often also used in programme evaluation.

The words 'objectively verifiable' are used to refer to indicators of a particular kind. The term 'verifiable' implies that the evaluator is able to demonstrate or prove that the evidence yielded by a particular indicator is both consistent and stable (i.e. reliable) as well as accurate and true (i.e. valid). The term 'objectively' implies that the evidence is observable both by oneself or by one person, but also by others.

To be objectively verifiable, an indicator thus needs to yield evidence from a data source which is both consistent and objective (i.e. evidence which is stable enough to be observed or measured on different occasions by different people). It will also need to yield evidence which is accurate and able to be verified or substantiated (i.e. evidence which is specific enough to be observed or measured, and able to be checked so that it can independently be shown to be true).

In an evaluation design, indicators form a link between what the programme aims to do, its activities and its results. Indicators are used to establish the particular types of evidence which an evaluator will look for from each data source, in order to answer an evaluation question.

### Indicators

Indicators can be quantitative or qualitative.

They are used to demonstrate that outcomes have been achieved.

Objectively verifiable indicators provide evidence which is able to be verified or substantiated because it is accurate, stable and consistent.

## Linking data sources and objectively verifiable indicators to data collection strategies

Credible evaluations are those which are based on analyses of data which are accurate, stable and consistent. This implies that the data are valid and reliable, in the sense that they are objectively verifiable. A credible evaluation design is also one which is based on evaluation questions which are answerable through rigorously conducted analyses of data. If convergent trends are noted in evidence yielded by more than one source, the credibility of the evaluation is further increased.

In focusing an evaluation, it is thus first necessary to establish appropriate evaluation questions. It is then necessary to identify appropriate data sources and indicators, to yield the specific types of evidence needed to answer the evaluation questions. It is also necessary to collect sufficient evidence for analysis of the data to be conducted and substantiated through checking.

The steps followed in evaluation design are normally as follows:

- 1 A set of evaluation questions is identified, through analysis of the logical framework of the programme and through negotiation with stakeholders.
- 2 The evaluation questions are then used to identify data sources. The aim is to establish sources of data which can provide evidence of sufficient quantity, quality and depth to answer the evaluation questions.
- 3 Indicators would be identified by considering the data likely to be yielded by a particular data source. The indicators would be those particular types of evidence or information which, if they were present in the data, would enable the evaluation questions to be answered. If, for example, interviews were the data source being used to answer the evaluation question 'Do parents endorse the value of the programme?' one would ask questions in the interview which would try and tap perceptions of the value of the programme. Positive statements about the value of the programme would be an indicator one would look for in the data.

One would then consider the credibility of the evidence one would be likely to gain from the interviews, and consider ways of increasing its credibility through checks on the accuracy and stability of the data. Evidence found in the interview data in relation to this indicator would then be used to answer the evaluation question.

The evaluator then needs to plan the procedures for collecting and organising the data. This includes a methodology for establishing where appropriate evidence can be found, based on a prediction of the exact form the data are likely to take.

Now let us try and follow these steps in identifying the indicators used in an evaluation. We will focus in the activity on procedures for objective verification of the data.

### Credible evaluations

Credible evaluations are those based on data which are accurate, stable and consistent.

Credible evaluations are also based on rigorously conducted analyses of data.

Objectively verifiable data from more than one source adds to the credibility of evaluation findings.

To do this, you will need to work with the evaluation design table you created in the last activity. We would like you to have this available and open next to you as you work through the next activity.

## Activity 4 45 mins



### Identifying objectively verifiable indicators

In Activity 3, you were asked to develop an evaluation design table, consisting of eight columns. In these columns you first identified the logical framework of a radio learning programme as reflected in its activities, and then the evaluation questions, data sources, indicators, samples of evidence and instruments which would be used in the evaluation.

In this activity, you will develop your evaluation design in more detail. You will be asked to identify particular types of evidence or indicators you would look for in each data source, so as to answer each evaluation question. You will then be asked to think through the procedures you could use to ensure that the evidence gathered is both accurate and stable.

Column Five (the 'Data Sources' column) in your evaluation design table provides an overview of the sources of evidence which would be appropriate in answering a particular evaluation question. Column Six (the 'Indicators' column) will now be used to provide detail on the particular types of evidence which could be used in answering each evaluation question.

### Tasks

- 1 First, develop indicators in column 6 in relation to the data sources you have listed in column 5. To complete this task successfully, it is necessary to be very specific. This one does by considering the specific types of evidence which could be used to answer each evaluation question. For example consider a particular evaluation question which Leigh might have asked in his evaluation. You will recall from your reading that the purposes of the evaluation were to establish whether the radio learning programme had potential and should continue. Given these purposes, one evaluation question Leigh could have asked would be 'Are children benefiting from the programme?'
- 2 Data sources in column 5 relevant to answering this evaluation question would be:
  - interviews with teachers
  - questionnaires with teachers
  - direct observation of programme
  - observation of children working
  - analysis of children's work
  - tests of English language competence
  - parent interviews

- parent focus groups
  - parent questionnaires.
- 3 In filling out the indicators column next to these data sources, one indicator you could look for would be evidence that children's listening comprehension abilities have improved. Other indicators could be as follows:
- evidence that children's speaking abilities have improved
  - evidence that children's reading abilities have improved.
  - evidence that children's writing in English has improved.
- 4 We would thus suggest that you list these types of specific evidence as indicators in column 6, and also write down in this column any other indicators you can think of which could be relevant to answering the evaluation question 'Are children benefiting from the programme?'
- 5 You will need to make the indicators you suggest very specific. One way to do so is to suggest particular types of evidence which, if present in the data you collect, would enable you to answer the evaluation question. Another way is to imagine the exact things you would want to observe, or the exact things you would want people to tell you about the programme and its activities, in order for you to be able to answer the evaluation question. It is also important to consider whether the evidence yielded by your indicators can be objectively verified. Some of the ways of doing so are by:
- conducting direct checks that the data are accurate
  - verifying the data against evidence yielded by the same data source at earlier or later points in time
  - substantiating the data against evidence yielded by other data sources or by other investigators.

*The feedback to this activity is at the end of the unit ►*

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## Is this evaluation feasible? If so, do we wish to proceed?

Once an evaluation design has been developed, it is normally discussed in principle with those who have commissioned the evaluation. The discussion may also involve programme staff and other stakeholders.

The decision is then taken whether or not to proceed with the evaluation, or to modify the design. If the decision is taken to proceed, the contract will be signed between evaluator and those commissioning the evaluation. Detailed planning of the instruments which will be used as part of the evaluation will then commence.

The initial phase of evaluation design (i.e. gathering information about a programme, establishing stakeholder expectations, priorities and issues, and



developing an evaluation design) is usually regarded as a feasibility study, and is also sometimes referred to as an 'evaluability assessment.' The *Glossary* defines evaluability as:

*'The extent to which an activity or a programme can be evaluated in a reliable or credible fashion.'*

Up to the time the evaluation contract is signed, either the evaluator and those commissioning the evaluation can withdraw from the process. It is thus important to stress that a process of evaluability assessment is normally conducted by both the evaluator and those commissioning the evaluation.

From the evaluator's side, the evaluability assessment will normally involve establishing the type of evaluation needed, whether the evaluation is feasible and do-able (i.e. whether the data required can be accessed and the evaluation can be completed within the time framework required), and how the information from the evaluation will be utilised. The decision to proceed with the evaluation will then be taken on the basis of this information, and evidence that programme staff and other stakeholders will cooperate and support the process of data collection necessary to conduct the evaluation.

Those commissioning the evaluation will also make their decision to proceed or not to proceed at this point. Their decision will normally be based on whether they feel the evaluation design is appropriate, and the evaluators have the competence and capacity to conduct the evaluation in the time framework required.

The decision whether or not to proceed with the evaluation is thus based on a mutual decision as to whether the evaluation is feasible and do-able. This is based on whether it will be possible to obtain the types of information needed to conduct the evaluation, whether the process of data gathering and data analysis is likely to proceed smoothly, and the process of reporting required.

Both the evaluator and those commissioning the evaluation will want to ensure that the evaluation questions are answerable through the type of evaluation design suggested, as the basis for developing a more detailed plan for data collection and measurement. If there is evidence that this is not possible, it is better to withdraw from the evaluation, prior to signing the contract.

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## Feedback to selected activities



### Feedback to Activity 1

#### 1 What the programme does

You will find information on what the Open Access College programme does under 'What is the Open Access College' and again under 'Learner Support System' and 'The Most Important Issue: Using and Integrating Media in Distance Education'.

#### 2 Activities and aims

The skill involved here is to analyse a programme's activities, to establish its purposes. The rationale for doing so is that programmes involve purposeful activities. It is likely that all programme activities which consume programme resources will have a purpose, which will in turn relate to the aims of the programme.

If this logical link between aims, objectives and activities is not clear, this can then be clarified by the evaluator by interviewing the programme staff

#### 3 Aims and purposes

Aims and purposes may be of different types. There are those aims and purposes which are established prior to the programme's inception, and those which evolve through programme experience. Examining current priorities (you will find these under 'Problems Encountered') may tell you not only about areas of the programme which are difficult to implement well, but also about possible new needs or potential changes in direction within the programme.

#### 4 Long-term aims

The evaluator will normally form a list of questions requiring clarification while reading programme documentation. These questions can then be used for purposes of getting programme staff to talk about the programme's work. In the process, areas of difficulty will often emerge, and possible new directions and current priorities can be established, clarified or probed by the evaluator while interviewing the programme staff.

#### 5 Use of long-term aims and current priorities

Here it is important to start with the information with which you have been provided about a programme. This is then used as the basis for strategising further data collection.

This process is often referred to as a process of progressive focusing on issues. Why programme documents and records can be helpful as a basis for progressive focusing, is that they are written records of the programme's work. Not only are they firm and available records (i.e. firm evidence); they are also able to provide the evaluator with information about the programme's process (i.e. how it works).

The way in which the information in programme documents has been put together is also of importance. Many programme documents will have been through a process of careful checking prior to being printed (especially programme reports). The process of checking involved is thus an important indicator, as it can provide the evaluator with evidence about the way in which information about the programme's work is collected and verified by programme staff.

Programme documents can thus not only provide the evaluator with a firm basis of information which can be objectively verified. They can also provide the basis for asking further questions. These can then take the evaluator into areas of the programme's work which are not clear, or with which he or she is unfamiliar.

### Feedback to Activity 2

#### 1 Questions for additional information

In organising, planning and implementing programme evaluations, Guba and Lincoln suggest that evaluations try and establish whether claims and concerns are justified, but should focus in particular on issues on which there is not agreement. Stake (1983) also suggests that issues form the preferred advance organisers for evaluations, forming priorities to which specific evaluation questions can then be attached. Weiss (1998) suggests that evaluation questions can be of different types, including questions on programme process, programme outcomes, attributing outcomes to the program, links between process and outcomes, and explanations, which centre not just on explaining what has happened, but how and why it has happened.

## 2 Additional questions

Stake (1983) has developed a whole set of procedures for developing what he calls 'responsive evaluation.' This is an evaluation which attempts to respond to audience needs for information. This is done by basing the evaluation around issues and questions which are of relevance to the needs of programme stakeholders, and by conducting the evaluation in such a way that these needs are met.

## 3 Checking interview schedules

As Stake (1983) suggests 'which data' is one aspect to consider in conducting an evaluation. 'How to do the evaluation' is another. Stake suggests that a large amount of evaluation resources should be allocated to observing the programme.

It is also very important in interviewing to ask questions in such a way that information provided is unambiguous. As Stake comments (1983: 80), 'The important matter for the evaluator is to get his information in sufficient amount from numerous independent and credible sources so that it effectively represents the perceived status of the program, however complex.'

For further information on how to write interview questions, prepare interview guides and develop questionnaires, refer to the following practical texts: Patton, M. (1987) and Henerson, M., Morris, M. and Fitz-Gibbon, C. (1987).

## Feedback to Activity 3

### 1 The aims of Leigh's evaluation

Being an evaluation of the pre-pilot stage of the programme, the evaluation would have been conducted for formative evaluation purposes. The programme would already have been planned prior to its pre-pilot implementation. The information from the pre-pilot evaluation would have been used to modify the existing programme plan as necessary. Hence its formative nature.

### 2 Who wanted the evaluation?

Leigh was a member of the project team. Hence this was a form of self-evaluation, commissioned by the developing organisation (OLSET).

### 3 Involvement of stakeholders

Stakeholders such as teachers, principals and children would have been involved in the pre-pilot implementation of the programme. As the evaluation at this stage would have been closely linked to the programme's implementation, these stakeholders would also have been involved in the evaluation.

Stakeholders such as the programme's management would also have been intimately involved in the evaluation at this stage. The funders, in contrast, would probably not have been. The reason for this was that the evaluation was being conducted for the purposes of establishing whether the form in which the programme was initially implemented in a few schools had potential for wider implementation.

In terms of these formative purposes, major re-planning of the programme might have been necessary, depending on the results of the programme in terms of apparent benefits to teachers and learners. As funding had been provided for the a three year period, the decision would probably have been taken to conduct an internal evaluation, the results of which would have been utilised internally, for purposes of programme re-planning and revision.

#### 4 The table

An evaluation design table is a very useful way of summarising the main features of a programme, and then the main features of the evaluation as these relate to the purposes and activities of the programme. In a self evaluation such as this one, there would be a strong likelihood that the evaluation would be conducted following an action research framework – Carr and Kemmis (1986); Cohen and Manion (1989) – based on a cyclical process of:

- ▶ planning
- ▶ implementation
- ▶ observation; and
- ▶ reflection/evaluation.

#### 5 Leigh's evaluation of the pre-pilot stage

Working backwards and forwards from a programme's activities is the method we prefer. The reason for this is that it starts the process of evaluation design from what one can see, observe and verify. One can then link the programme's activities with the programme's goals and purposes as reflected in its aims, objectives and outcomes, as well as with its use of resources (inputs) and benefits and results (outputs).

However, as Stake (1983) has suggested, it is generally possible to start an evaluation design at many different points. Observation, interview and feedback are normally the most important functions in a progressively focused evaluation process. They are thus central to understanding both the programme's logic and its practical implementation.

#### 6 Leigh's possible evaluation questions

In attempting to figure out the evaluation questions, bear in mind that this was a self evaluation conducted for formative evaluation purposes. It is thus likely

that the evaluation will have been designed to answer questions about whether the initial format in which the programme was implemented was effective as well as perceived by stakeholders to have potential benefit.

## 7 The data sources, indicators, samples of evidence and instruments

It should be borne in mind that each type of evaluation design is useful for some types of purposes and each design has limitations. Many of these strengths and limitations, as Weiss (1998) indicates, have to do with internal and external validity.

In commenting on the type of self evaluation conducted by Leigh, issues of bias may be greater or lesser influences on the results, depending on the purposes of the evaluation and the audiences of the evaluation report. Weiss (1998: 188) suggests that self-evaluations can be very useful, and comments:

*'Perhaps the simplest way to evaluate a programme is to ask the people who are involved with it what they think; staff, administrators, and clients. Staff are knowledgeable about what goes on and have day-to-day inside experience with activities and, often, with outcomes. They can render judgements about what is going more and less well and provide important suggestions for how to improve programme activities.*

*Administrators, too, are insiders, and they have insider knowledge about the program's pluses and minuses. In addition, they often get feedback (wanted and unwanted from outside about what the press, the community and other organizations like and dislike about the program.*

*Those are useful sources of information. When the program agency is collecting data to improve its own performance, such information may suffice. Its collection brings together the experience and practitioner wisdom of people who spend their working lives engaged with the program's vicissitudes, and their varied sources of knowledge can shed considerable light on the program.*

*But when the evaluation is destined for outside eyes as well, this kind of information is often suspect. Staff and administrators have a stake in the program. They may interpret subtle cues as progress where others would see little change at all. When staff members know that the evaluation going to be reported to sponsors and funders of the program, they will generally seek to show the program in its most favourable light. Even if they don't purposely slant their replies to the evaluator's questions, they probably are more alert to the program's successes than they are to its shortcomings.'*

For further references on action research and its link with programme evaluation, you may wish to refer to Stenhouse, L. (1975), Carr, W. and Kemmis, S. (1986) and Cohen, L. and Manion, L. (1989).

## Feedback to Activity 4

### 1 Indicators (Column 6)

Consider the evaluation question first. Identify the different types of information or data which could be used to answer the evaluation question. Then consider where these data could be observed, measured or found (the data source). Then consider each of these forms of evidence in turn. Answer the question 'What is the precise evidence which, if present in the data source, would answer the evaluation question.' See how this is done in 4. and 5. following. Then try doing this for yourself.

For further references on triangulation and its use in multimethod evaluations, you may wish to refer to Denzin, N. (1970) and (1978).



# Collecting information about programmes



In this unit we suggest ways of undertaking the detailed planning necessary to establish samples of evidence and instruments relevant to answering evaluation questions. It focuses on the use of quantitative and qualitative data sources such as programme documents, interviews, focus groups and questionnaires to establish whether an ODL programme's aims and objectives have been met. It also suggests ways of focusing observations and of designing data collection procedures so that they provide objectively verifiable information about a programme's outcomes.

## Learning outcomes

When you have worked through this unit, you should be able to:

- 1 Analyse a completed evaluation study as the basis for designing a new evaluation.
- 2 Develop a strategy for data collection in a new evaluation, in relation to the logical framework of or theory of implementation of a programme.
- 3 Determine appropriate sampling strategies and instruments for data collection in a new evaluation.

## Developing a methodology for data collection

As the first step in collecting information about the programme and its activities, King, Morris and Fitz-Gibbon (1987) suggest that programme documentation should be used to establish the programme's critical characteristics. Interviews and observation can then be used as supporting data sources to verify and substantiate critical programme features, and to gather substantiating information about the programme's context, activities and theory of action.

Four types of data collection methods are then normally used to collect further supporting data:

- 1 examination of records kept over the course of the programme
- 2 use of self-report measures (e.g. questionnaires, interviews and focus groups)
- 3 conducting observations
- 4 measures of programme performance.

In developing a methodology for data collection, the evaluator will thus normally need to either find or develop the following types of instruments:

- ▶ frameworks for analysing programme documents
- ▶ interview schedules
- ▶ focus group schedules
- ▶ questionnaires
- ▶ observation schedules, and/or
- ▶ performance measures or tests.

As part of the methodology for data collection, the evaluator will also need to specify the exact procedures which will be used to ensure that sufficient evidence necessary to answering the evaluation questions is collected. This is normally done by developing a detailed plan for collecting evidence in relation to particular indicators relevant to answering evaluation questions, and measuring outcomes.

This implies ensuring that sufficient items are included in the instruments used for the evaluation, so that particular indicators relating to programme outcomes are measured.

Using a number of different instruments also implies using a methodology for data collection based on triangulation between different data sources, and different samples of evidence. It also implies use of multiple methods and a multimethod evaluation design, in that different procedures are required for

### Data collection methodology

The methodology for data collection is normally based on:

- initial analysis of programme documents
- initial interviews and observation
- examination of programme records
- self-report measures
- observation
- analysis of programme performance.

### Multiple data sources

Use of multiple data sources and instruments implies use of triangulation and a multimethod design.

collecting and analysing the data, as well as methods for integrating trends from different data sources and different analyses.

## Prioritising in terms of the total data available

To answer the evaluation questions, the evaluator will need a detailed plan for data collection and measurement of outcomes. ODL programmes normally involve large numbers of learners, working at distance from each other. In an ODL evaluation, a plan for data collection is likely to involve collecting information from a number of sites, using a number of observations, a number of interviews, a number of questionnaires, and perhaps a number of performance measures and tests. These data are likely to be supplemented by analysis of a sample of programme documents, and a sample of programme records.

The plan for data collection will need to include a sampling strategy for each evaluation question. Developing a sampling strategy will normally involve considering data collection from a number of angles. One of these will be how much data is needed on each indicator to answer the evaluation question. Another will be whether it is feasible to collect these samples of data in the time available. Another will be whether it is possible to analyse the data samples in the time available. The evaluator will then consider the form the evaluation report will take in terms of the evaluation brief, and specifically whether it will be possible to answer the evaluation questions credibly in the report if the particular sampling strategies are employed.

Finally, before including a particular sampling strategy as part of the overall evaluation plan, the evaluator will need to consider the audiences of the evaluation report, and ask:

- ▶ Will the evaluation be judged as credible and rigorous by programme outsiders? (i.e. persons such as sponsors who know about the programme but do not know its intimate workings well)
- ▶ Will the evaluation be judged as credible and rigorous by programme insiders? (i.e. persons such as programme staff or programme beneficiaries who know about the programme and its intimate workings well)

As programme evaluations provide evidence about a particular programme, the ultimate test of credibility is whether insiders, who know a programme well, are able to recognise their own programme in an evaluation report, and are able to vouch for the accuracy of its findings.

## Use of samples of evidence in evaluation

Besides identifying indicators linked to the data sources and the evaluation questions used to guide data collection and analysis, there are other aspects the evaluator needs to consider in an evaluation design. One important aspect is how much data is needed in order to answer an evaluation question. While in an ideal situation the evaluator would like to have time to examine

### Sampling

ODL programmes normally involve large numbers of learners and teaching and learning at multiple sites.

The evaluation design thus involves a plan for data collection and measurement, based on a sampling strategy.

everything about a programme, in reality it is generally impractical to consider all indicators, and all evidence.

Evaluations are normally conducted under severe constraints in terms of time, as well as budgetary constraints in terms of how much money is available to conduct an evaluation of a particular programme. The evaluator will thus normally have to base the evaluation on samples of evidence, and to focus on certain indicators more than others.

There is thus a need for sampling strategies when focusing and planning an evaluation. The need for sampling strategies stems from the fact that evaluators can normally not observe all programme activities, or interview all stakeholders and programme beneficiaries. Strategies for sampling thus need to be developed and specified in the evaluation design for each evaluation question, based on the reality that the particular evaluation question will need to be answered based on samples of evidence.

In considering sampling in relation to each evaluation question, the programme evaluator will normally work with the credibility of the evaluation report in mind. The central question the evaluator will ask will be as follows:

How much data will be needed for the evaluation findings to be credible?

In order to do this, the evaluator has to think carefully about the amount of evidence which will need to be gathered from each data source, in order to answer each evaluation question. This is likely to be a complex task, as there are likely to be a number of focuses in an evaluation, and a number of evaluation questions.

## Developing sampling strategies

Unless the programme being evaluated is a very small and relatively simple one, it will not be possible for the evaluator to collect and transcribe data on every learner and activity over the course of the entire programme. In addition, there is normally no need to cover the entire spectrum of sites, participants, events and activities in order to conduct a rigorous evaluation, and to write a credible evaluation report.

For this reason, the evaluator will need to develop a methodology for data collection in terms of the total data available. This will normally involve use of a number of sampling strategies, in terms of the need to sample from:

- ▶ the number of sites at which the programme is being implemented
- ▶ the numbers of beneficiaries of the programme
- ▶ the numbers of programme activities and events
- ▶ the number of different times when programme implementation takes place.

To develop appropriate sampling strategies to answer the evaluation questions, the evaluator will need not only to consider not only the amount of data available, but also the types of data available. Whether the evidence is likely to be consistent, stable and reliable, and unbiased, accurate and valid, are also factors which can influence how extensive data collection needs to be, and how much data will need to be considered.

The evaluator thus needs to ask a number of questions which relate both to the extent of the data on the programme, as well as the nature of the data themselves, as follows:

- ▶ Will the data from a particular data source be credible?
- ▶ Is the evidence accurate and stable, and how can the reader be informed that the evidence used has been verified as accurate and stable?
- ▶ Will the evaluation findings be credible if evidence from only one data source is collected and analysed?
- ▶ Should the evidence from one data source be added to the evidence from another source?
- ▶ Should different data samples be analysed for purposes of verification or to substantiate analyses?
- ▶ Should different types of analysis be used for purposes of verification or to substantiate analyses?
- ▶ Will the evaluation findings be firmer and more credible as a result?

In the next activity you will be asked to analyse the methodology for data collection used in an evaluation. As part of your analysis you will be asked to consider the issue of sampling.

### Sampling for credibility

Sampling strategies are based not only on amount of data but also types of data available, and their effects on evaluation credibility.

Those data which are objectively verifiable, accurate and stable are most credible.

Procedures for verification and substantiation enhance credibility.

## Activity 1 45 mins



### Evaluating programme implementation: Developing a methodology for data collection using multiple sources of data

This activity makes use of:

- the *Potter et al* resource in the *Resources File*
- your evaluation design table for this resource.

After Leigh had completed his evaluation, Potter and his colleagues conducted a formative evaluation of the pilot stage of the radio learning programme in 1993, and a follow-up evaluation in 1994. We would like you to focus on the pages in the evaluation report which summarise the design and findings of the 1993 evaluation (Stage Two of the Pilot Stage from page 4 to the middle of page 8), and summarise the strategy for data collection used by the evaluators in 1993.

You will need to prepare a table as follows:

Data sources	Instruments	Samples of evidence

#### Tasks

- 1 In the data sources column, list all the different types of data the evaluators gathered in 1993.
- 2 In the instruments column, list the different instruments the evaluators used or would have needed to use to collect their data in 1993.
- 3 In 1993 there were 14 500 learners and some 300 Grade One teachers involved in the programme in schools in both urban and rural areas across five provinces in South Africa. It was clearly impossible from the scale of the programme to gather data on all schools, teachers and learners involved in the programme. You have been provided with information on the size of the sample of learners used in the 1993 evaluation to pre- and post-test English language competence. If there were roughly 50 learners per classroom in these schools, work out how many classrooms were tested. Do you think this was a large enough number, in terms of the total size of the programme?
- 4 How much data do you think Potter and his colleagues needed to gather for each data source used in the evaluation? Estimate the size of the samples of evidence the evaluators needed to include in the evaluation in order to draw conclusions about the value of the programme, for each of the following data sources:
  - interviews with teachers
  - analysis of learner's work
  - teacher questionnaires
  - observation in classrooms
  - case studies of individual schools
  - interviews with parents
  - interviews with programme staff
  - available data from programme documents and records
  - focus groups with programme stakeholders.
- 5 How could triangulation be used in analysing the data:
  - To link evidence yielded by different data sources?

- To use evidence yielded by one data source to substantiate evidence yielded by another data source?
- 6 If the evaluators had had access to fewer data sources, would their evaluation have been less credible?
  - 7 If the evaluators had had access to fewer data sources, would they have needed more data?

*The feedback to this activity is at the end of the unit ►*

## Examining programme documents and records

Due to their accessibility and the opportunity they provide of working unobtrusively to learn about the nature of the programme and the focuses of its work, programme documents and records are normally examined by the evaluator as an integral part of the methodology for data collection. It is common practice to ask programme staff for all documents they have available on the development and implementation of the programme, and to ask how the programme keeps its records of income and expenditure, activities, and delivery of services to beneficiaries.

Programme documents are used to form a conceptual map of what a programme's aims to do, what it does, and the theory of implementation underpinning how it works in practice. The programme's records also provide indicators of how the programme has actually worked, and the services, benefits and results it has and is achieving with respect to programme participants and beneficiaries.

They also provide an idea of the extent of the programme's activities, the number of beneficiaries, and the stakeholder groups involved in the programme's implementation.

The value of programme documents and records is that they provide formally recorded evidence about different aspects of a programme's logical framework or theory of implementation, as well as the extent of the programme's actual implementation. They can thus be used at the outset of the evaluation for purposes of evaluation design, to establish the extent of available data in the programme and for developing sampling strategies in an evaluation. They can then be subsequently used as an unobtrusive source of evidence in their own right, as well as for verification or substantiating evidence yielded by other data sources.

### Developing a strategy for examining programme documents and records

Programme evaluations are normally conducted within a short time period and under the pressures of time. As many programme documents can be

#### Programme documents

Programme documents and records are unobtrusive measures.

They are valuable as a firm written record of programme purposes and activities.

They can also provide an overview of the logical framework of the programme and the extent of its implementation.

scrutinised in the evenings, the evaluator can conduct this type of analysis after hours.

Programme records, in contrast, generally form part of the administrative structure of the programme. They will thus need to be consulted during the day, side by side with contact with programme staff and stakeholders, and with field visits.

A strategy for accessing and working with programme documents and records is thus necessary, which enables the evaluator to work with these different data sources simultaneously and at times convenient to the programme's administrative staff. This needs to include ways of clarifying issues discovered through reading about the programme, or through field visits to be clarified in the process of ongoing contact with programme staff.

The evaluator normally accesses programme documents and records as part of a wider strategy for gaining access to the programme and understanding its logical framework and the nature of its work. This usually includes an attempt to identify one or more persons with detailed knowledge of the programme who can act as informants about the programme's work. Repeated interviews are then conducted with these informants, to ask them to explain or answer questions about the programme documents and records, as well as about the programme's activities more generally.

Owing to the limited time normally available for conducting an evaluation, this strategy needs to be established early on. The reason for this is that time spent in establishing available data in a programme, and in examining programme documents and records is normally essential when undertaking detailed planning of the samples of evidence and instruments used in the evaluation. This is the case both in formative evaluations (evaluations focusing on the process of programme implementation and issues relating to programme improvement), as well as summative evaluations (evaluation with a retrospective focus, usually involving an attempt to establish the outcomes, effects or impact of the programme by observation or measurement).

## Identifying instruments relevant to the focuses of the evaluation

Analysis of programme documents and records, combined with field visits and contact with programme staff, will normally provide the evaluator with an idea of the types of data sources available, as well as their extent. Once different data sources have been identified and relevant samples of data selected, the evaluator will normally make a list of the potential data sources (e.g. interviews, questionnaires, observation, analysis of programme records). Indicators are also identified, of the specific types of evidence the evaluator wishes to observe or measure.

Once this process has been completed, the evaluator will consider the particular samples of evidence which will need to be accessed to answer the



evaluation questions, and where these are to be found. A further list will then be made of the type of instruments (e.g. interview and focus group schedules, open-ended and fixed-alternative questionnaires, observation schedules and checklists, tests and frameworks for analysis of programme documents) necessary to collect these samples of evidence.

Evaluation is thus based on:

- ▶ evaluation questions
- ▶ data sources
- ▶ indicators
- ▶ samples of evidence
- ▶ instruments.

Credible evaluations are those in which:

- ▶ there is a clear link between each element in the evaluation design
- ▶ samples of evidence are clearly and logically defined and selected
- ▶ samples of evidence are objectively verifiable or can be substantiated by other data
- ▶ instruments are valid and reliable, thus producing data which are accurate, stable and consistent.

In the following sections we will examine how instruments are identified, developed and used to collect evidence relevant to the focuses of the evaluation. We will first consider self-report measures such as interview schedules, focus group schedules and questionnaires, then observation schedules and finally instruments to measure performance data.

## Self-report measures

Self-report measures can take a number of different forms, and involve tapping the personal responses of respondents, who are normally programme staff, beneficiaries and other stakeholders to the programme and its activities. The evaluator will focus on obtaining self-reported experiences, attitudes, beliefs and behaviours, normally in response to questions. This information is provided in either spoken or written form.

To stimulate a free flow of information, schedules are normally constructed by the evaluator to guide and focus the questions asked of the respondents. These instruments are then used to gather data in one or more of the following ways:

- ▶ interview
- ▶ focus group

### Self-report measures

Self-report measures focus on evidence about personal experiences, attitudes, beliefs and behaviours.

This type of evidence is normally gathered by individual or focus group interviews, questionnaires and personal accounts.

- ▶ questionnaire
- ▶ personal accounts.

What is common to each of these methods of collecting data is that the evaluator will follow a deductive approach, starting with questions and then gathering information. There are thus three stages in the process. The first involves specifying the questions to tap particular samples of evidence. The second involves finding existing instruments or developing new instruments to collect these types of data. The third involves establishing a suitable time for data collection, and then collecting the data.

## Planning for data collection using self-report measures

Neuman (1997) suggests that the steps followed in planning for data collection using self-report measures are similar to those taken by survey researchers at the research design stage, namely:

- 1 Decide on what type of self-report measure is appropriate in terms of the type and number of respondents who will be contacted, as well as the context of the study.
- 2 Develop the instrument or instruments which will be used with respondents:
  - write questions to measure variables/indicators
  - decide on response categories
  - organise question sequence
  - design questionnaire or interview schedule layout.
- 3 Plan a system for recording answers.
- 4 Pilot test the instrument or instruments used.
- 5 Train questionnaire administrators or interviewers as necessary.
- 6 Draw the sample, based on the following sampling strategy:
  - define the type of sample needed
  - develop a sampling frame in relation to the total number of respondents available
  - decide on the sample size
  - select the sample.

In deciding which type or types of self-report measure to use, it is important to bear in mind that interviews, focus groups, questionnaires and personal accounts each have certain advantages, disadvantages and limitations (Cohen and Manion, 1989). Interviews have the advantage of providing extended personal contact between evaluator and respondents, but have the disadvantage of being time consuming both to conduct and analyse. Focus groups have the advantage of bringing larger groups of respondents together, but have the disadvantage of less individual contact with, and thus less potential information from, each respondent.

Questionnaires, on the other hand, often have low return rates, which is a particular problem because those who return questionnaires may differ from those who do not. As Neuman (1997) suggests, if the response rates on a questionnaire fall below 75%, the results obtained are likely to differ significantly from what they would have been if everyone had responded.

Personal accounts of the activities within a programme are also likely to differ greatly, depending on the focus of self-report. An advantage is that personal accounts focus on processes and personal experiences within programmes. A disadvantage lies in the fact that the meanings attributed to social episodes are personal, and may not be shared. There may also be difficulties in verifying or authenticating evidence provided from self-reports, which may be atypical, and thus unrepresentative.

### Stability, accuracy and completeness of self-report measures

Henerson, Morris and Fitz-Gibbon (1987) suggest that there are concerns relating to the objectivity and completeness of data yielded by self-report measures. In addition, there are concerns about the stability of self-reports (King, 1996).

The type of personal account given by programme participants or beneficiaries may vary, for example, depending on their perceptions of the purpose of the researcher. There are likely to be differences in the type of account given of the same event if the focus lies providing a self-report on activities as personal experiences (Cohen and Manion, 1989), as opposed to an account which takes the form of a self-report on programme activities. Similarly, there will be differences between one-off reports, periodic reports, and reports with a retrospective focus (King, Morris and Fitz-Gibbon, 1987).

There may also be difficulties in relating themes in self-reports to the characteristic or indicator being investigated (Hammond, 1995). Similarly, the forms of self-disclosure in personal accounts may be situationally influenced (King, 1996). It is therefore necessary to think through carefully not only the response format, but also the type of and amount of data which is likely to be yielded by different kinds of self-report measures.

### Self-report data

An advantage of self-report data is that it is personal.

A weakness is that it can be prone to bias and distortion.

A limitation is that self-report data may be atypical, and thus difficult to verify.

It is also important to decide how often you will want to gather self-report information, and the implications of this. It is often the case that periodic self-reporting is required from programme staff or from programme beneficiaries (e.g. questionnaires pre and post an activity; a regular progress report on programme activities) which may also influence the type of account given, and the nature of the report provided.

Despite concerns about the consistency, stability, accuracy and completeness of self-reports, they provide the evaluator with direct access to perceptions of programme participants and beneficiaries about the programme and its activities. They thus have the potential to provide the evaluator with the types of vicarious experience about the programme which may not otherwise be available.

As Henerson, Morris and Fitz-Gibbon suggest (1987: 20):

*'Self-report procedures represent the most direct type of attitude assessment and should probably be employed unless you have reason for believe that the people whose attitudes you are investigating are unable or unwilling to provide the necessary information.'*

Similarly Patton (1987) that the value of going into the field and having personal contact with programme participants in their own environments outweighs concerns about objectivity. As Patton comments (1987: 17), 'closeness does not make bias and loss of perspective inevitable; distance is no guarantee of objectivity. The mandate of qualitative methods is to go into the field and learn about the programme firsthand.'

For this reason, King, Morris and Fitz-Gibbon (1987) suggest that decisions about use of self-reports are likely to be practical ones, and influenced by three factors:

- ▶ whether the programme's activities are homogeneous, or whether they vary widely over time, requiring a regular flow of information with respect to programme changes
- ▶ the evaluator's assessment of whether those involved in the programme will tolerate the interruptions to their work which will result if regular self-report information is requested from them
- ▶ the amount of time and resources the evaluator has available to devote to coding and analysing self-report data.

## Measurement priorities in interviews

Cohen and Manion (1989) suggest that interviews offer a variety of ways of gathering self-report data. The four types of interviews commonly used in research are:

- I **structured interviews**, in which the content and procedures are organised in advance in terms of the purposes of the study.

- 2 unstructured interviews**, in which the content, wording and sequence of questions are varied to meet the purposes of the study is left to the discretion of the researcher
- 3 non-directive interviews**, in which the respondent's subjective responses to a given situation are tapped, with minimal direction or control over the content and process of the interview exercised by the researcher
- 4 focused interviews**, in which the respondent's subjective responses to a given situation are known to the researcher, who focuses on clarifying the subject's position, or on gathering additional information relevant to interpreting the subject's position.

In preparing for each of these types of interview, the researcher or evaluator will normally construct an interview schedule. These are likely to vary in both form and length, according to the researcher's conception of what the interview is, the purposes of the research, as well as the type of respondent being interviewed.

In formatting interview schedules, Cohen and Manion suggest that the first step is to focus on the research objectives of the study. These then need to be translated into the questions which make up the interview schedule. This needs to be done in such a way that the questions asked of those interviewed adequately reflect what it is that the researcher is trying to find out.

It is usual to begin the task by writing down the variables or indicators which the study aims to deal with. As Tuckman (1972) comments:

*'The first step in constructing interview questions is to specify your variables by name. Your variables are what you are trying to measure. They tell you where to begin.'*

Once the variables or indicators have been specified, a series of questions will then be written which can be used to elicit information from respondents. These questions may be tightly or more loosely worded, depending on the type of interview envisaged, and also the different ways in which it is envisaged that the interview can be used for the purposes of collecting data. The questions are then arranged into a sequence.

Kerlinger (1979) suggests that three kinds of questions are normally used in the construction of interview schedules. These are:

- 1 fixed-alternative items**, in which respondents are asked questions which require them to choose between two or more alternatives
- 2 open-ended items**, in which respondents are asked questions which supply a frame of reference, but put a minimum or restraint on the answers, as well as the way in which the answers are expressed

### Interview schedules

Interview schedules are used to focus the interview questions on specifics, relating to the indicators or variables of interest to the evaluator.

**3 scale items**, in which respondents are asked questions which require them to indicate different degrees of agreement or disagreement.

Because the evaluation questions are usually known in advance when doing programme evaluations, the most frequently used method is the structured interview, incorporating one or more of these question formats.

However, repeated interviewing using focused interviews is also commonly used, especially in ethnographic or empowerment evaluations (Fetterman, 1984; 1989; 1993; 1996). This type of data collection technique enables the evaluator to progressively focus on issues in programmes which may not be apparent at the outset of the evaluation. For this type of interview, open-ended questions will usually be used, combined with what Kerlinger refers to as 'funnel' questions. This type of open-ended question format usually starts with a broad question or statement, and then narrows down to a specific question, enabling the respondent to answer the question in a focused way.

## Individual and focus group interviews

Interviews can be conducted individually, or with groups of respondents. In individual interviews, there is usually greater flexibility for the researcher to focus on the world view of the individual. They enable the evaluator to include in the interview schedule questions which ask respondents about facts or opinions either directly or indirectly, or about general or specific issues, as well as questions which require respondents to answer in different ways (e.g. using highly-structured response formats such as checklists, tables or ranking/rating scales as opposed to structured or unstructured verbal responses).

In group or focus group interviews, open-ended questions will generally be used in the interview schedule, as these allow maximum possibility for group process and discussion to develop around issues, as well as the inclusion of all respondents in the discussion. More structured interviewing techniques, in contrast, can limit participation in the process.

### Activity 2 60 mins



#### Evaluating programme implementation: using interviews and observation to establish a programme's benefits

Programme documents and records provide unobtrusive ways of gaining an idea of a programme's logical framework. However, as with any other type of record or self-report, they can be prone to distortion or bias.

It is thus important for the evaluator to use a number of sources of data, as to make contact with a programme's stakeholders, and in particular with the programme director and the programme staff. This is usually structured through interviews. Observation is also normally used in the initial stages of an evaluation to gain a direct impression of the programme's activities in the field.

In this activity, you are asked to draw up a list of questions focusing in particular on stakeholder perceptions of programme benefits. You are also asked to draw up an observation schedule based on indicators of what you would consider to be a successful programme activity.

### Scenario

In this activity you need to imagine that you have been asked to undertake a summative evaluation of the radio learning project in South Africa. The evaluation brief is to focus on the programme at this point in its development, where its materials are broadcast daily to one and a half million children in South Africa. You have already read about the early development of the programme in Leigh's as well as Potter and colleagues' evaluations. You have already developed what you think is a logical framework (Logframe) for the programme. As the programme's work sounds interesting you have agreed to take the brief. The funders have agreed to pay for you to fly to South Africa for a short orientation visit. On Monday morning, you will arrive in Johannesburg, where the programme has its head office. You will then spend five days working with the programme. Your schedule is as follows:

- ▶ on Monday afternoon, you have meetings with the programme director and the programme staff
- ▶ on Tuesday morning, you will be visiting the programme's production facilities and will then be taken to see a radio broadcast in action at the South African broadcasting corporation's studios
- ▶ on Wednesday, Thursday and Friday, arrangements have then been made for you to see the programme in operation in schools and classrooms on site
- ▶ the programme staff have agreed to make themselves available for additional interviews on the Tuesday afternoon and also at the end of the week on the Saturday morning.
- ▶ your return flight is booked for the Saturday evening.

As time is short and you leave for South Africa this weekend, you will need to draw up your interview schedules for use with the programme director, programme staff and programme beneficiaries at this point. You will also need to develop two observation schedules. You can then arrive in South Africa with these instruments ready, so that you can start work on a preliminary survey of the programme immediately after arrival.

### Tasks

- 1 Using three pieces of paper, draw up lists of the specific questions you would like to ask the programme director, programme staff and programme beneficiaries when you get to South Africa, so you can check that your understanding of the programme's Logframe is correct.
- 2 Use your lists of questions to construct the instruments you will use during your initial visit to the programme in South Africa next week.
  - First create an interview schedule for interviewing the programme director. We would suggest that you focus this on establishing what the programme director

perceives the logical framework of the programme is, and the results the programme is achieving in terms of its activities.

- When you have written this, then create a second interview schedule for use with programme staff. We would suggest that you focus the programme staff interview schedule on establishing what they perceive the logical framework of the programme is, and the results the programme is achieving in terms of its activities.
  - Now create a third interview schedule for use with programme beneficiaries. We would suggest that you focus the programme beneficiary interview on how the programme works in practice, and on what programme beneficiaries perceive the programme is achieving in terms of benefits provided, and tangible results.
- 3 From the documents you have already read about the programme, you know that it has been set up to develop radio materials to teach English to primary school children who speak English as their second language. These materials take the form of radio scripts, which are broadcast daily to large numbers of teachers and children in classrooms across South Africa. The broadcasts are supported by classroom materials such as posters and wall charts, as well as workbooks and reading books. Given the fact that the programme's activities involve both materials writing as well as work with teachers at school and classroom level, you will need to create two separate observation schedules.
- In the first observation schedule, we would suggest that you focus on the types of activities you would expect to observe on the materials writing side of the project's activities.
  - In the second observation schedule, we would suggest that you create a checklist of the types of activities you would expect to observe during your visits to schools and classrooms.

## Piloting

In developing new instruments for use in an evaluation, it is normal practice to use them on a pilot level before applying them in practice. We would thus suggest that if possible you involve a colleague or friend in working with you.

Ask your colleague or friend if you can conduct a trial interview with him or her. We would suggest that you use the programme director's interview schedule for this purpose. Pay particular attention to any questions you ask which your colleague or friend may not understand, or on which he or she may need clarification.

After the trial interview, ask your colleague or friend for feedback on how he or she experienced the interview process. Then discuss your other instruments with your colleague or friend, and use this feedback to modify these instruments.

Your interview schedules have been designed for use in individual interviews. If you made the decision to interview programme staff or programme beneficiaries in groups as opposed to individually, how would you need to modify your interview schedules?

*The feedback to this activity is at the end of the unit ►*



## Questionnaires on measurement priorities

An interview schedule normally consists of a set of questions read one-by-one to the respondent by the interviewer, who also records responses. It will be evident in the process whether or not a respondent has understood the question asked. In a questionnaire, in contrast, respondents read the questions themselves, and mark their answers in the instrument. It is thus particularly important for questionnaire questions to be clear and understandable, as lack of comprehension of the question asked will generally only become evident at the time the data are analysed.

In formatting both paper and pencil tests and questionnaires, Neuman (1997) suggests that the researcher needs to develop the instrument so as to measure particular variables or indicators. Both types of instruments are thus similar in being highly structured and focused.

Other instruments used in programme evaluations are normally constructed in programme evaluations following similar principles (Henerson, Morris and Fitz-Gibbon, 1987). In evaluations using paper and pencil tests, the researcher will focus on content areas relating to particular variables or indicators. In evaluations using questionnaires, the researcher will focus on gathering factual information and/or opinions, relating to relating to particular variables or indicators.

Once questions have been identified to measure particular variables or indicators, the questions will normally be arranged in sequence. Specific questions will then be added to or deleted, until there are a sufficient number of items to tap each area of content, information or opinion.

In a questionnaire, the format in which each question/item will then be written can be either closed-response or open-response. There are advantages and disadvantages of each type of item/question format. It is generally easier to score closed-response items/questions. It is also relatively easy to relate the data gathered back to the indicators being measured, as the alternatives provided in the question are limited, and the fixed choices involved are directly related to the indicator being measured. For this reason, closed-response type formats are very often used in questionnaires, despite the fact that data obtained are related to a limited number of fixed choices.

Open-response formats in items/questions, yield a different type of self-report data, as they enable the respondents to talk about or write about their thoughts freely and in an open-ended way. For this reason, open-response type formats are very often used in interviews. Open-response type formats are also often used in questionnaires, particularly if the researcher is interested in the opinions or perspectives of the respondents with respect to particular issues. However, open-response data are harder to score, since the evidence tends to be varied.

For this reason open-ended data often require transcription and some form of content analysis. This makes the analysis more time-consuming, as well as more difficult to relate back to the indicators being measured.

### Closed-responses

Closed-response items/questions are those in which the question is written in a way which forces respondents to choose an answer from a number of predetermined and fixed alternatives.

### Open-responses

Open-response items/questions are those in which the question is written in a way which enables respondents to structure their answers freely, and to write in an open-ended way.

## Existing instrument or a new one?

One advantage in using existing instruments in an evaluation is that it saves time. Henerson, Morris and Fitz-Gibbon (1987) suggest that an additional advantage is that existing instruments or measures provide the evaluator with the benefit of other researchers' experience. However, a disadvantage is that the items in an existing instrument may not relate directly to the indicators relevant to the data sources used in an evaluation. If this is the case, then the content categories from analysis of the data may not relate directly to the evaluation questions. Another reason for a lack of fit between data and indicators may be the presence of important issues in the data, which were not evident at the time the instrument was designed.

There are a number of advantages and disadvantages in developing new instruments in an evaluation. The process involved in developing new instruments is hugely time consuming, both in item writing, as well as in the pilot testing and the subsequent modifications required.

The following steps are normally followed in developing a new instrument in an evaluation:

- ▶ identify the indicators and specific information the instrument is required to yield.
- ▶ consider the context of the evaluation, the type of programme activities and the stakeholders involved in the programme.
- ▶ consider the particular sample of respondents for whom the instrument is being designed.
- ▶ write items or questions designed to yield the particular samples of data needed from these respondents
- ▶ assemble the instrument by arranging the items or questions in a logical order. Make the initial form of the instrument longer than you need so poor items or questions can be identified and eliminated
- ▶ try out the instrument, with the aim of conducting an item analysis, critiquing the questions and revising them
- ▶ shorten the instrument to the length required, retain the best items or questions and leave out those which are poorly constructed or do not yield the type of information needed
- ▶ assemble the final form of the instrument, ready for administration.

Morris, Fitz-Gibbon and Lindheim (1987) suggest that it is important to consider how data yielded by an instrument will be used in the evaluation. There is also a need to focus items in instruments on those performance objectives in a programme which have the highest priority. In addition, besides item content and format, Neuman (1997) suggests that there are a number of

### Existing v new instruments

Existing instruments save the evaluator time.

They also provide the evaluator with the benefit of other researchers' experience.

New instruments may enable greater focus on those variables or indicators of interest in the evaluation.

This has the advantage of yielding data directly relevant to evaluation questions.

additional issues which need to be borne in mind in developing questionnaires. These include effects on quality of data of:

- ▶ length of questionnaire
- ▶ order or sequence of questions
- ▶ non-response rates of questionnaires or refusals to be interviewed (these may be high when postal questionnaires are used or where telephone interviews are conducted to administer the questionnaire)
- ▶ format and layout of the questionnaire.

Neuman suggests that there are strengths and weaknesses in questionnaires, as well as in the other types of instruments used to collect self-report data. In developing questionnaires as well as other survey instruments, the disadvantages of a particular question format can be reduced by mixing different kinds of questions (e.g. using both open-response and closed-response questions). Multiple methods can also be used to compensate for weaknesses or limitations in instruments used for collecting self-report data, or weaknesses or limitations in other instruments used for observation and/or testing.

## Conducting observations

Many ODL evaluations are based on the suggestions made by Parlett and Hamilton (1972; 1974) that an evaluator should visit a programme, observe its work and interview programme staff as well as other stakeholders before deciding on the focuses of an evaluation. Observation is also normally used in both research and programme evaluation for purposes of fieldwork (Neuman, 1997).

Observations can be of different types. Casual observation usually takes place in the early stages of evaluations.

Formal observation is then the planned and systematic application of a system of procedures for gathering observational data (Wilkinson, 1995).

In ODL evaluations, casual observation is normally conducted at the outset, while the evaluator is familiarising him or herself with the programme's logical framework, and how activities relate to programme benefits. Formal observations are then conducted involving the writing of field notes, or the use of systematic structured and/or quantitative methods of data collection involving use of observation schedules and checklists (King et al, 1987).

Both structured and unstructured observational methods involve direct contact with programme activities, and normally involve a process of qualitative interpretation (Patton, 1980b; 1987). Conducting observations and fieldwork is an essential part of evaluation, as it enables the evaluator gain direct personal experience of the programme's activities. This is focused on

### Observation

Observation is used at different stages of evaluations in different ways.

Casual observation is normally followed by more formal, systematic procedures.

developing or deepening understanding of the work a programme does (Fetterman, 1984; 1989), enabling the evaluator to verify or substantiate trends in data obtained through other forms of analysis (Guba and Lincoln, 1981; 1983).

## Observation as a primary or secondary data source

The major strength of direct observation is that it is direct (Wilkinson, 1995). However, compared to a data collection procedure such as a questionnaire, observation is time-consuming as well labour intensive. In planning an ODL evaluation, the evaluator will thus normally tend to use observation sparingly and as needed, as one of a number of sources of data.

Whether observation is used as a primary or secondary (substantiating) data source in a particular evaluation design will depend on the purposes of the evaluation, and the answers to the following questions:

- ▶ How much evidence is needed from direct observation to establish what an ODL programme does?
- ▶ How much evidence is needed from direct observation to establish whether it achieves its objectives?
- ▶ How much evidence is available from other primary (and less time-consuming) data sources?
- ▶ Is the evidence from these other primary data sources complete, of a good quality and objectively verifiable?
- ▶ Is a large amount of evidence needed from direct observation of an ODL programme to verify and substantiate the evidence from other more indirect measures of outcomes?

Besides the quality of data available from other less direct data sources, the nature, context and scale of a programme will also influence the extent to which observation is used as a primary or secondary data source. In a programme undertaking implementation at national level, it would be unwise to base an evaluation on observation of the programme's work in one area or region only.

This implies that observation is normally used sparingly and for purposes of verification or clarification in ODL evaluations, due to their large scale. While direct observation can be used as a primary source of data in a small-scale evaluation, and would also be used as a primary data source in an in-depth ethnographic investigation of a programme's work at a few sites (Fetterman, 1982; 1989), it will normally be used in a supporting or substantiating role in large-scale evaluations.

### Observation in ODL

It is difficult to use observation as a primary data source in ODL evaluations, owing to their large scale of implementation.

## Conducting formal observation: focusing on essentials

Patton (1987) suggests that direct, first-hand observation in the field forms an important source of qualitative evaluation data. Observational fieldwork involves much more than the casual looking around we do in ordinary living. Careful preparation for making observations is as important as disciplined training. Once in the field, the evaluation observer takes careful and detailed field notes, which form the raw data of qualitative observation.

In contrast to casual observation in which the evaluator will use direct contact with programme activities to progressively focus on what a programme's work entails, it is important in formal observation to focus on essentials and specifics, as it is not possible to observe everything.

Experienced observers usually identify certain kinds of activities and events which are likely to yield particularly useful information and events. Patton (1987: 82) suggests the uses of what he calls 'sensitising concepts' or categories. These provide a basic framework highlighting the importance of certain kinds of events, activities, and behaviours. Group process, and leadership, for example, are sensitising concepts.

In programme evaluation, Patton suggests that the following areas of programmes form sensitising concepts or categories for fieldwork:

- ▶ describing the programme setting
- ▶ the human, social environment
- ▶ programme activities and participant behaviours
- ▶ informal interactions and unplanned activities
- ▶ the language of programme participants
- ▶ nonverbal communication.

The purpose of observation is to progressively focus on important areas of a programme's work, and to find out as much as possible through this about what is happening in the programme. Information from direct observation can then be related to other more indirect or unobtrusive measures of human activity, from which the evaluator can also learn a great deal about a programme.

Fieldwork is above all not a routine activity, and it is important to be alert both to what is taking place in activities, as well as what is not happening. This implies attention to what takes place before and after activities, attention to how programme participants engage with activities, as well as attention to the activities and world views of programme participants who do not attend, or who drop out of programmes.

### Sensitising concepts

Sensitising concepts include programme environments and activities, as well as the behaviours, interactions, social activities, language and non-verbal communication of participants.

## How much observation is necessary?

Having decided on the broad categories and also possibly on more specific units of behaviour, the evaluator will need to decide on a sampling framework. Wilkinson (1995) suggests that there are a number of methods of sampling observational behaviour, the most important being:

- ▶ event sampling, in which the focus of observation is on a specific phenomenon
- ▶ time sampling, in which periods of observation are undertaken at different points in time.

ODL programmes usually deal with large numbers of students, and involve work conducted by many different people at many different sites. ODL programmes also normally involve work conducted at distance, in different contexts and in geographically dispersed areas of countries. The ODL evaluator thus needs to work with two opposing realities:

- ▶ it is difficult to conduct an ODL evaluation without some direct observation of the work the programme does in the field
- ▶ it is also difficult to develop a sampling strategy for collecting observational data in an ODL evaluation which is representative of what the programme does in all the areas in which it works.

The ODL evaluator will thus need to work with what is realistic in terms of constraints in terms of budget and time available for the evaluation. As field observation is normally expensive in terms of both time and money to support travelling and accommodation in the fields, the decision will probably be made to conduct observation on a limited rather than an extensive or extended basis, cutting the observational samples to what is realistic and affordable in terms of the budget.

In many ODL evaluations, the cuts in time spent in observation are unfortunately often to the minimum level which is necessary to gain a flavour of what the programme does, the contexts in which it works, and the types of students and learners with which it deals. For this reason, the differences between what is ideal and what is realistic need to be noted as constraints and limitations in the evaluation.

It is usually also wise to discuss these constraints or limitations in evaluation design with the sponsors of the evaluation. The reason for this is that they may have unrealistic expectations concerning what an evaluation can achieve in terms of the budget allocated.

## Recording observational data

Cohen and Manion (1989) comment that the recording of observations is a frequent source of concern for the inexperienced researcher. Particular concerns are how much needs to be recorded, and what form recordings should take.

Cohen and Manion suggest that the recording of observations in structured settings normally takes quite a different form to those in unstructured settings. In unstructured settings, the focus is usually on the taking of field notes, which focus on particular areas of a programme's work or activities in the field. In structured settings, in contrast, formal observation schedules are often used. These usually involve frequency tables or checklists focusing on particular forms of behaviour as indicators.

A different stance is required by the researcher working in situations involving casual observation, formal observation, or participant observation (Wilkinson, 1995). In unstructured or casual observation, it is important to observe the situation with relatively open eyes, ears and mind. It is also important to make notes of casual observations, as these may yield valuable insights and yield information indispensable for subsequent more formal and structured observation.

Wilkinson suggests that formal observation, in contrast, is the planned and systematic application of procedures for conducting observations. It usually involves an unintrusive observer who makes field notes and/or times, counts or rates behaviour or events. These type of frequency-based observations are often structured through use of observational checklists. Video cameras can also be used to record observations, enabling the tapes to subsequently viewed and analysed.

Patton (1980b; 1987) favours the taking of field notes over use of formal checklists, for the reason that a formal checklist may focus the attention of the evaluator too narrowly. He offers a number of guidelines for recording and analysing observational data (1987: 105), which are summarised in Table 1.

**Table 1 Guidelines for recording and guidelines for recording and analysing observational data (Patton 1987: 105)**

Be descriptive in taking field notes.
Gather a variety of information from different perspectives.
Gather a variety of information from different perspectives.
Cross-validate and triangulate by gathering different kinds of data – observation, interviews, programme documentation, recordings, and photographs.
Use quotations: represent programme participants in their own terms. Capture participants' views of their own experiences in their own words.
Select key informants wisely and use them carefully. Draw on the wisdom of their informed perspectives, but keep in mind that their perspectives are limited.
Be aware of and sensitive to the different stages in fieldwork: <ol style="list-style-type: none"> <li>1 Build trust and at the entry stage. Remember that the evaluator-observer is also being observed and evaluated.</li> <li>2 Stay alert and discipline during the more routine middle-phase of fieldwork.</li> <li>3 Focus on pulling together a useful synthesis as fieldwork draws to a close</li> <li>4 Be disciplined and conscientious in taking detailed field notes at all stage of fieldwork.</li> </ol>
Be as involved as possible in experiencing the programme as fully as possible while maintaining an analytical perspective grounded in the purpose of the fieldwork: to conduct an evaluation.
Clearly separate description from interpretation and judgement.
Provide formative feedback as part of the verification process of fieldwork. Time that feedback carefully. Observe its impact.
Include in your field notes an evaluation report of you own experiences, thoughts and feelings. These are also field notes.

Above all, Patton suggests (1981; 1987) that conducting observation is a highly personal experience. The validity and meaningfulness of the results depend directly on the evaluation observer's skill, discipline and perspective.

Observational techniques can be an important part of the methodological repertoire of evaluators, but the particular techniques of observation applied are never entirely separate from the individuality of the evaluator doing the fieldwork.

Toren (1996) makes similar observations in suggesting that observation (and in particular participant observation) is not so much a method as a particularly intense way of living. Nothing that is said or done by the observer or the people with whom he or she is working is irrelevant. The discipline of writing field notes is, however, central. The reason for this is that the description of what is at first appearances the most ordinary and everyday details feeds back into the capacity for noticing, which becomes better and better with time.

The implication is that good observational skills are learned. Alertness, sensitivity, disciplined recording and practice are the basis for developing competence as an observer.



**Activity 3 60 mins****Data collection using multiple methods**

When undertaking an evaluation, previously conducted evaluations are usually analysed by the evaluator, as these usually provide an idea both of the programme's history and the nature of its activities, as well as the response of programme beneficiaries. They can also provide ideas on the design level relevant to conducting a new evaluation, as well as information about relevant instruments.

You have already produced interview and observation schedules for the evaluation of a radio learning programme which had previously been evaluated by Leigh, and then by Potter and his colleagues. In this activity you will now develop an evaluation design, and a strategy for data collection.

As you are being asked to conduct a summative evaluation, we would suggest that you first develop a logical framework or theory of implementation for the programme, then develop appropriate evaluation questions for summative evaluation of the programme at this point in time, and then state appropriate data sources, indicators, samples of evidence and instruments. Bear in mind that Potter and his colleagues pre- and post-tested learners in both 1993 and 1994. The instruments they developed for this side of the evaluation are available. It may well be that you also wish to include performance testing of learners in your design, as valid and reliable instruments for doing so are available to you. When you have drawn up your evaluation design table, consider how you will actually collect the data. You will thus need to develop a strategy for data collection. Remember that there are nine provinces in which the radio learning programme is working, and the sponsors have asked you to work by yourself rather than as part of a team of consultants, and complete your evaluation within a month. They envisage you spending three weeks in the field, and then an additional week writing up your report.

**Tasks**

- 1 Take an A4 piece of paper. As the sponsors are allowing you four weeks (28 days) to complete the evaluation, write the numbers 1 – 28 down the left hand margin. Now divide the paper into two columns. Head up the left hand column 'Data collection', and the right hand column 'Samples of evidence'.
- 2 Now work with your diary and your map of South Africa and work out a detailed strategy for data collection over the first 21 days (i.e. the three weeks you will be in the field). Record in the 'Data collection' column the type of data you need to collect on each of these 21 days, and in the 'Samples of evidence' where you will need to be on each day to collect it, and the size of the samples you will need to work with on these days.
- 3 Finally, work out how you will need to spend the additional seven days to complete your evaluation report on time. Remember to build into your data collection strategy sufficient time to organise and analyse your data.

If you are finding that there is insufficient time to do the job you need to do, what would you suggest to those who are commissioning the evaluation?

*The feedback to this activity is at the end of the unit ►*

## Using performance data to measure outcomes

The discussion up to this point in this unit has focused on the way in which data from programme documents and records, data from self-reports, and data from observations can be used in the evaluation of programmes. The discussion has also focused on the instruments used to gather these types of data. The reason for focusing on these types of data is that these are commonly used data sources in evaluations.

There has also been some discussion of direct and indirect procedures for gathering data. In terms of measuring outcomes, data from programme documents and records and data from self-reports are indirect measures of results or achievements. It is actual performance data which come closest to measuring outcomes directly.

For this reason, evaluators often decide to combine indirect or reported evidence about results or achievements with direct observation or measurements. These are normally focused on outcomes, as reflecting a programme's benefits and its results.

Performance data can be collected in a number of ways. Observation, for example, can be structured so as to provide direct evidence of performance. This type of evidence can also be gathered by performance data such as examples of classroom work, progress tests, work samples, work simulations, achievement tests or examinations.

In making the decision as to whether to use performance data in answering particular evaluation questions, the evaluator will normally be guided by a number of considerations (Morris, Fitz-Gibbon and Lindheim, 1987):

- ▶ What performance objectives or outcomes will be used to guide selection or construction of the performance measures to be used?
- ▶ Will these performance measures adequately reflect these performance objectives or outcomes?
- ▶ Can the evaluator reasonably expect that the performance objectives and anticipated outcomes will have been achieved by the time the measurements are conducted?
- ▶ Can adequate performance measures be identified and located?
- ▶ Alternatively, is there available the time and resources necessary to custom-make the instruments needed?
- ▶ Can samples of information be identified which are representative of the way in which performance objectives and anticipated outcomes are being achieved?

### Direct and indirect measures

Data from programme documents and records and data from self-reports are indirect measures of results or achievements.

Performance data come closest to measuring outcomes directly.

### Methods of gathering performance data

- direct observation
- examples of classroom work
- progress tests
- work samples
- work simulations
- performance tests such as achievement tests
- examinations.

- ▶ Can the samples of information needed be gathered validly and reliably using the instruments in the time available?
- ▶ What use will be made of the performance information?
- ▶ Will the performance data be reported in such a way that the information will not be misinterpreted or misused?

In the last activity, you will no doubt have found that the answers to the above questions are not easy to provide in those evaluations in which time and resources are limited. If one is evaluating a programme over a long period of time, it may be possible to draw performance data samples which are representative of what the programme does, and its benefits and effects. If the evaluator's contact time with the programme is limited, this type of data collection will generally not be possible.

Assuming that it is feasible for the evaluator to base the evaluation on performance data, he or she will need to identify or create performance instruments which can directly measure the indicators in which he has interest. In the last activity you were faced with a situation in which tried and tested performance tests were already available from a previous evaluation. Had they not been, it must be stressed that the development of a new performance test is an enormously time consuming and expensive task.

It is thus preferable in an evaluation to use existing instruments if at all possible. As there are many existing instruments (e.g. paper and pencil tests) which are commercially available, these should be accessed and scrutinised.

What is important in scrutinising existing instruments is to work from the programme's Logframe, and to draw up a list of performance indicators designed to measure particular performance objectives or outcomes. The need for a new performance test will only be necessary if the items in existing performance measures are not related to these performance indicators.

## Developing performance tests to measure outcomes

Assuming that a new paper and pencil test for a particular performance area is necessary, the researcher will need to follow the following steps:

- ▶ identify or create a series of items based on the types of content or skills which represent the particular performance area
- ▶ write or type each of the items on a separate filing card or separate computer file to create an item bank
- ▶ check each of the items with an expert in the content/skills area being tested, to ensure that it is likely to measure the content/skills in which you are interested
- ▶ choose more than the number of items ultimately needed in the test, so as to enable poorly performing items to be identified and discarded

### New vs existing tests

If at all possible, existing performance tests should be used, owing to the time and expense involved in developing new ones.

- ▶ arrange the items in sequence and in a logical order to create a pilot instrument. This should be assembled and then printed in the format on which the paper and pencil test will ultimately be based
- ▶ pilot test these items as part of this pilot instrument. Ensure that the sample of respondents you test is similar to the respondents involved in the programme you are evaluating.
- ▶ analyse the responses to each item, so as to identify good and poor items. As identifying good items implies identifying those items which best measure performance in the content and/or skills area, you will probably need to take the advice at this stage both of
  - an expert in the content/skills area being tested, to ensure that enough items are retained to tap each content and/or skills area; and
  - an expert on test development, to ensure that enough items are retained measure the performance objective or outcome validly and reliably.
- ▶ based on this process of item analysis, you will then assemble the final version of your performance test. Some experts would suggest that this instrument would then need to be pilot tested in order to demonstrate that enough items had been included to tap each content and/or skills area, so as to measure the performance objective or outcome validly and reliably.

It will be evident from the above that the procedures necessary to develop valid and reliable performance instruments are exacting and often take considerable time. They are also costly to follow and fulfil both in terms of time and money. They also normally require the input of specialists who have undertaken the process of test development before.

In practice, these considerations often mean that the evaluator may decide that the costs in time and money necessary to create or find performance instruments is not warranted. It may also draw necessary resources away from other aspects of the evaluation.

If this is the case and existing performance measures are not available, the evaluator will probably opt for use of indirect or secondary evidence about performance. Though not ideal, this may be preferable to taking the steps necessary to identify or create valid and reliable instruments which can directly measure performance objectives or outcomes. If this is the case, the evaluator will need to ensure that the evaluation data are sufficiently strong and firm in other areas, to compensate for this limitation and weakness.

## Relating data sources, indicators and instruments to evaluation questions

The discussion in the previous section has highlighted the reality that there are often limitations in validity and reliability which affect the data gathered in evaluations. Good evaluation studies are those in which there are clear links between the evaluation questions, the data sources, indicators and instruments. However, the reality is that, due to constraints in time and money, evaluation designs are often not perfect.

In addition, the quality of the data on which evaluations are based are at times compromised by limitations in the time and money available to conduct the evaluation.

For this reason, Cook and Campbell (1979) have referred to evaluation as 'the worldly science', implying that at times hard choices have to be made on a methodological level in order to meet evaluation requirements.

As with good research studies, good evaluation studies compensate for potential limitations by using different forms of data, and different instruments in combination. It is thus likely that good evaluation studies will use triangulation to achieve rigour, both in data collection and in data analysis.

Use of multiple methods, however, often leads to complex evaluation designs, and large amounts of data. Good evaluation studies are generally those in which, despite a complex methodology, there is a clear link between the evaluation questions, data sources, indicators and instruments used in gathering data. The ultimate test is whether there is a link between each item in the instruments used in the evaluation and the research focuses:

- ▶ evaluation questions
- ▶ instruments
- ▶ data sources
- ▶ samples of evidence
- ▶ indicators.

## Using instruments in combination

One of the difficulties in using multiple methods to conduct research and evaluation studies is that there are a large number of different data collection procedures and instruments which can be used in any study. There are also different ways in which quantitative and qualitative data sources such as programme documents, interviews, focus groups and questionnaires can be used to establish whether a programme's aims and objectives have been met.

In addition, there are a large number of different ways in which any evaluation question can be answered. As a result, the data collection process can lead to

### Good evaluation studies

Good evaluation studies are those in which there are clear links between the evaluation questions, the data sources, indicators and instruments.

a proliferation of different procedures and instruments, diffuse as opposed to focused data collection, and to huge and unmanageable amounts of data. If the evaluator does not focus on the essentials, this can lead to time-consuming and in certain cases unnecessary analyses.

We conclude this unit by stressing that multiple methods can be either well or poorly conceptualised and used. To be well conceptualised and used, there is a need to plan the data collection process in such a way that specific items or questions can be included in the instruments, which relate directly to the data sources, indicators and sampling strategies relevant to answering each evaluation question.

Focusing data collection thus implies deciding on what is essential, and then developing direct links between those indicators considered to be important, and specific items included in the instruments. Identifying what is important implies prioritising certain data sources and indicators above others, and focusing only on those aspects in the data which are essential to answering the evaluation questions.

In practice, the type of evaluation design tables with which you have worked in this unit can be used to focus data collection. This is normally done by

- ▶ identifying the indicators which are essential to answering each evaluation question
- ▶ developing specific items to measure these indicators
- ▶ ensuring that sufficient items are included in the instruments, so as to yield the data samples necessary to answer the evaluation questions.

It is then important to strategise data collection carefully, to ensure that all the necessary data can be collected and analysed in the time available.

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## Feedback to selected activities



### Feedback to Activity 1

#### 1 The different types of data the evaluators gathered in 1993

What you will need to do here is to read the evaluation report, and imagine how the evaluators worked to conduct the evaluation in practice. What was their methodology for data collection? What would they be likely to have observed? Whom would they be likely to have interviewed, and when? If they used achievement test data (from both pre and post tests), when would they have planned to collect these data? When would this information have actually been collected, and how would this have been possible (i.e. how could they have collected the data from so many schools at the same time)?

#### 2 Instruments

The important issue is that conducting evaluations requires considerable organisational skill, in order to strategise collecting the right data at the right time. The planning of instruments also needs to be carefully conducted.

#### 3 Sample size

It is normally impossible to interview everyone, observe all learners, and analyse all programme documents. Sampling is normally necessary. The important issue is to try and ensure that the samples of evidence collected are representative (i.e. that they are typical of all the available evidence), so that conclusions can be drawn about the programme based on evidence which is valid. There are rules of sampling based on probability, which entail drawing the samples of evidence based on the laws of chance. However, in the majority of evaluations, there is not the time available to draw random samples. The evaluator will instead work on the basis of gathering sufficient evidence for the evaluation report to be perceived by its audiences as credible.

#### 4 Samples

One of the ways to work this is to place yourself in the shoes of the donors of the programme. Given the size of the enterprise and the amount of money given to the programme to conduct its work with 14500 learners, how much



evidence would you need to provide so that a donor would feel that the evaluation report is credible, and valid?

## 5 Use of triangulation in analysing the data

In large-scale programmes such as the one being evaluated here, the strategy for collecting data will be based on a decision taken by the evaluator as to how much data is necessary. The decision will also be taken as to how many data sources are necessary for the evaluation to be credible.

As there is not normally the time available to draw random samples, what many evaluators will do is to use data from different sources to corroborate evidence, so as to raise the credibility of the evaluation. Triangulation based on linking data across different data sources will also be used as a strategy for increasing credibility. This will be done by using data from different data sources as a check, and as the basis for corroborating indications yielded by different data sources, as a strategy for increasing the validity of the evaluation.

## 6 Implications of fewer sources of data 1

Using multiple data sources may not by itself lead to increased validity and credibility in an evaluation. It is possible to conduct a credible evaluation with a small data set or with a data set which has been collected from a limited number of data sources.

## 6 Implications of fewer sources of data 2

As a rule, it is best to aim to keep the evaluation focused and simple. There is little point in trying to answer an evaluation question with large amounts of data gathered using poorly focused instruments. It may be better to base the evaluation on a smaller amount of data, properly focused and properly gathered, analysed and integrated.

## Feedback to Activity 2

### 2 The instruments you will use

In terms of the steps outlined above for conducting an evaluability assessment, this would imply initially working with the data available to you. This might include conducting a preliminary interview with the person who has provided you with the evaluation brief. It would probably also involve asking for documents on the programme, which can then be used to gain an initial idea of what the programme does.

The programme's activities and purposes can then be used to construct an idea of the programme's theory, which can then be filled out, or altered, when you are able to make direct contact with the programme and its staff in South Africa, and observe the programme's work at first hand. The three interview schedules you construct should be developed with this purpose in mind. They are designed to get stakeholders talking, so you can test out whether your ideas about the programme's activities and its purposes are correct.

### 3 Observation schedules

It may well be that you feel that it is difficult to create observation schedules for a programme you have not yet visited, and for a process of radio script-writing and materials writing and production with which you are unfamiliar. If this is the case, we would suggest that you follow the suggestions made by King, Morris and Fitz-Gibbon (1987), as follows:

- ▶ Construct a list of characteristics of the programme.
- ▶ From this list, create scenarios or mental pictures in your mind of the different activities in which the programme staff are likely to be involved.
- ▶ Create scenarios or mental pictures of typical programme episodes (e.g. what a scriptwriter will need to do to write a script; what a producer will need to do in working with actors in recording a script; what will take place at the radio station when the recording of the script is broadcast; how teachers will need to be trained to work with the radio lessons; what a teacher will need to do to get ready for the radio lesson in the classroom; what the children and teachers will do both during the broadcast lesson and in working with the lesson material after the broadcast is over; how a teacher will need to prepare her lessons for the next day).
- ▶ Create scenarios or mental pictures of what should not occur, in each of these episodes.
- ▶ From these scenarios choose the types of programme episodes you would want to observe. As you will only be in South Africa for a week for your initial visit to the programme, you might want to focus on one or two types of programme episodes (i.e. those programme activities which will give you a general idea about what the programme does, and how it works in practice.)
- ▶ Choose an observation method to suit each type of programme episode in which you are interested.
- ▶ Decide how long each observation time sample will need to be in order to yield sufficient data for your purposes in your initial orientation visit (i.e. how much of each activity you will need to see in order to get an overview of the work done by the programme staff and by the programme as a whole).
- ▶ Prepare a sampling plan for conducting observations.
- ▶ Prepare the sheets for recording observations.
- ▶ Inform the programme staff about the intended observations.
- ▶ Conduct observations for the time samples you have chosen over the period of your visit.
- ▶ Prepare analysis sheets for scoring and interpreting your data.

We hope that these suggestions are helpful to you. You would need to complete as many of the above steps as possible before leaving for South Africa. You would then use your initial draft observation instrument as a guide, which you would then need to modify substantially once you have had a chance to observe some of the programme's activities.

For further reading on evaluability assessment, you may wish to refer to Wholey, J. (1994) and Weiss, C. (1998).

### Feedback to Activity 3

This type of feasibility study and checking of the logistical sides of the evaluation design are necessary in order to ensure that the evaluation is successful. It is very important to be in the right place at the right time, and in an evaluation conducted over a period of four weeks, collection of data is a tiring and exacting process.

Planning one's time available is thus of the essence. Do not forget to check these aspects of your data collection strategy with people who know the area and the programme well. Many evaluators ask programme staff to act as informants on these issues.

This underlines the importance of developing good relationships with the programme staff. This is normally an essential part of getting the job done. You will note that many evaluators acknowledge the important contributions made by programme staff in the evaluation in their evaluation reports.

Evaluations are often commissioned by persons who do not have experience of conducting evaluations. As a result, there may be an initial lack of understanding of the amount of time it takes to conduct research, and especially the amount of time it takes to analyse data. It is better to be upfront about potential time problems before they occur.

This needs to be counterbalanced against the needs of those sponsoring the evaluation for information. Sponsors often have pressures and deadlines for which evaluation information is necessary. It is important to be aware of these issues and to talk them through prior to accepting an evaluation brief, and also to be aware of these pressures in developing a time framework for completing the evaluation.

A solution to time problems may be to involve other evaluators in working with you. This may have implications in terms of the expense of conducting the evaluation. However, it may provide a solution which enables the evaluation to be conducted within the time framework envisaged by the sponsors, while providing you with the assistance and resources you need for your evaluation report to be produced to time.



# Analysing, linking and reporting information about programmes



## Introduction

Unit 5 focuses on how to analyse different sources of information to establish whether an ODL programme is successful, and suggests ways of linking quantitative information on outcomes with qualitative information from observation, interviews, focus groups and questionnaires. It makes suggestions as to how to highlight the main trends from different types of information, and how to report these trends in such a way that what is presented is useful to programme stakeholders.

Focus is placed on procedures for analysing, verifying, substantiating and linking the data yielded by an evaluation, based on use of different types of triangulation. It suggests ways of linking quantitative information on outcomes with qualitative information from observation, interviews, focus groups and questionnaires. The aim is to highlight ways in which objectively verifiable data from different types of instruments can be used to yield credible and rigorous evaluation findings, and to highlight ways of reporting evaluations so as to increase the likelihood that evaluation findings will be utilised.

Unit 5 also introduces a number of key concepts and terms with respect to analysing, linking and reporting data from programme evaluations, and to examine how these concepts and terms apply in practice. The key concepts covered in this unit will be:

- ▶ using triangulation in linking data from multiple data sources and multiple methods
- ▶ use of a programme's logical framework or theory of implementation to establish its value or worth
- ▶ reporting evaluations so as to have maximum likelihood that the findings will be utilised.

## Learning outcomes

When you have worked through this unit, you should be able to design an evaluation, so as to:

- I Organise and analyse evidence from different data sources and instruments.

- 2 Use triangulation to link and substantiate evidence from different data sources and instruments.
- 3 Highlight the main trends from different data sources and instruments, so as to draw inferences as to whether a programme's outcomes have been achieved.
- 4 Use evidence with respect to aims, objectives, outcomes, indicators, inputs and outputs to establish whether an ODL programme is successful.
- 5 Report an evaluation in a way that is useful to programme stakeholders.

## Establishing whether an ODL programme is successful

The materials in this handbook focus on the process of evaluation design. It has been our intention in the first four units to introduce you to evaluation design in ODL programmes, with the aim that you will be exposed to the concepts and skills involved in designing and implementing research and evaluation studies in open learning and distance education.

In this unit we focus on the analysis of evidence about ODL programmes, and on the use of:

- ▶ quantitative evidence such as indicators of extent of programme implementation and performance measures, and
- ▶ qualitative evidence from data sources such as programme documents, interviews, focus groups and questionnaires.

We will first focus on how to use aims, objectives, outcomes, indicators, inputs and outputs as a framework for establishing whether an ODL programme is successful. We will then suggest ways of linking quantitative information on outcomes with qualitative information to establish whether a programme's aims and objectives have been met.

To conclude, we will then make suggestions as to how to highlight main trends from these various types of information. We will also suggest how to report these trends to an audience in such a way that what is presented will be useful to a programme's stakeholders, and fulfil their needs for evaluative information. As in Unit Four, we will link discussion of appropriate methodology for measuring outcomes to the need for evaluations to be perceived as credible and rigorous.

## Using triangulation to increase credibility and rigour

Triangulation, or the use of multiple methods in research or evaluation, provides a number of procedures for checking and verifying evidence. These procedures provide ways of organising and analysing data from different data sources and instruments, as well as a number of ways in which trends from evaluation findings can be substantiated (Denzin, 1970; 1978).

At the data collection stage, use of different types of triangulation can provide ways of verifying or substantiating the accuracy and stability of data.

At the data analysis stage, triangulation can also be used in a number of ways to increase the rigour of the analysis. Stated simply, valid data analysed in a valid way are likely to lead to valid results and conclusions.

This is necessary for the credibility of the findings from the evaluation, and the credibility of the evaluation report.

### Multitrait multimethod evaluation designs:

- use evidence from multiple data sources, indicators, samples of evidence and instruments
- supplement one data source or type of analysis with other forms of analysis, and with other sources of information
- use triangulation of different types in verifying and substantiating evaluation evidence and analyses.

### What is triangulation?

Denzin (1970; 1978) has recommended that triangulation of different types should be used in social science research, and has developed a typology of triangulation as follows (1970: 297-300):

- 1 Time triangulation:** triangulation based on combining cross-sectional and longitudinal research designs, in which the researcher would attempt to establish whether similar results would be obtained in studies conducted at different points in time.
- 2 Space triangulation:** triangulation making use of cross-cultural techniques, in which the researcher would attempt to establish whether similar results would be obtained in studies conducted in different places and with different cross-cultural groups.
- 3 Combined levels of triangulation:** triangulation based on studies which used more than one level of analysis, to attempt to establish whether similar results would be obtained in studies conducted on the individual level, the interactive or group level, and the level of collectivities (i.e. organisational, cultural and/or societal levels).
- 4 Theoretical triangulation:** triangulation based on studies based upon alternative or competing theories to establish whether similar interpretations would apply to those studies based on using one viewpoint only.
- 5 Investigator triangulation:** triangulation involving the use of more than one researcher or observer; to establish whether similar results would be obtained to those found in studies using one investigator only.

## 6 Methodological triangulation: triangulation using either

- the same method on different occasions; or
- different methods on the same object of study.

Triangulation can take thus many forms, and can be used in research or programme evaluation in a variety of different ways. What is common to all types of triangulation is:

- ▶ an attempt to base research or evaluation conclusions on more than one source of evidence
- ▶ an attempt to increase the credibility of research or evaluations through use of multiple methods.

As Denzin comments (1978: 28):

*'No single method ever adequately solves the problem of rival causal factors.... Because each different method reveals different aspects of empirical reality, multiple methods must be employed.'*

## How is triangulation applied in ODL evaluations?

In programme evaluations, triangulation of different kinds can be used to increase the credibility and rigour of descriptive evaluation designs (evaluation designs in which a logical and comprehensive description of a programme is evolved which is then used as the basis for judging the programme's value or worth).

Triangulation is thus useful in the evaluation of ODL programmes, as these are normally based on descriptive designs (evaluations which aim to describe one programme or implementation strategy as opposed to compare different programmes or implementation strategies). It can be applied in different ways at every level in research design and implementation, in developing and using:

- ▶ evaluation questions
- ▶ instruments
- ▶ data sources
- ▶ samples of evidence
- ▶ indicators.

Credible ODL evaluations are those in which:

- ▶ there is a clear link between each element in the evaluation design
- ▶ samples of evidence are clearly and logically defined and selected



- ▶ samples of evidence are objectively verifiable or can be substantiated by other data
- ▶ instruments are valid and reliable, thus producing data which are accurate, stable and consistent.

Ways in which multiple methods can be used at these different levels in evaluation design and implementation are discussed in the sections which follow. We have in previous units described how evaluation questions can be developed using multiple methods. We thus focus discussion on data sources, indicators, samples of evidence and instruments.

## Using triangulation with a single data source

Triangulation involves use of various methodologies for verifying, substantiating and linking data, which can be used both within single data sources, as well as across different data sources.

Triangulation within a single data source will be used where the types of evidence available are varied, and of different types. An example of use of triangulation using various types of data within a single data source is provided by King, Morris and Fitz-Gibbon (1987: 61), who suggest that there are a large number of examples of programme records which can be used for evaluative purposes. These include:

- ▶ certificates on completion of activities
- ▶ completed student workbooks
- ▶ dog-eared and worn textbooks
- ▶ products produced by students (e.g. student reports, assignments and examination scripts)
- ▶ attendance and enrolment logs
- ▶ sign-in and sign-out sheets
- ▶ progress charts and checklists
- ▶ unit or end of module tests
- ▶ circulation files kept on course books or materials
- ▶ diplomas and transcripts
- ▶ report or mark record cards
- ▶ minutes of meetings.

Working with these different types of programme records, triangulation can be used both for verifying the extent of programme activities as well for verifying the accuracy of data. It can also be used for purposes of substantiation and/or clarification, to develop greater understanding and to

ensure that interpretations of data from particular programme documentation and records are accurate.

During data collection, for example, evidence from verbal indicators based on the content of programme documents can be compared with numerical indicators from financial records or schedules of attendance. These data can then be checked against observational indicators based on the form and state of these programme documents and records. Observational indicators include evidence of the way in which programme documents have been stored, evidence of way in which they have been used, evidence of the frequency with which they have been used, as well as evidence of the frequency they have subsequently been referred to.

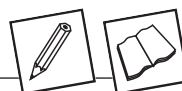
During data analysis, trends yielded by different forms or types of data can also be checked and compared. Trends yielded by analysis of data at one point in time can, for example, be checked against trends in similar data at a different point in time (e.g. programme documents or records from a previous or a subsequent year). Trends from analysis of the course records kept by administrators can be checked against trends from those involved in field implementation (e.g. lecturers, teachers or course tutors). These can, in turn, be checked against trends from analysis of documents and records kept by students and parents (e.g. logs, journals, records of bookstore purchases, as well as objects such as class or family photographs).

In terms of the variety of programme documents and records normally available in an ODL programme, different procedures for triangulation can thus be used in a number of different ways for checking and substantiation at the data collection stage. They can also be used for checking and substantiation at the stage of data analysis.

## Triangulation across different data sources and instruments

As indicated in the previous sections, triangulation can be of different kinds. Each type of triangulation provides a different way basing research or evaluation findings on more than one source of evidence. The most commonly used types of triangulation are time, space, investigator, data, methodological, theoretical and combined levels of triangulation.

One of the best ways to demonstrate how these types of triangulation can be used to link trends in evidence both within and across data sources and instruments is to examine completed multimethod evaluations. We will thus ask you to examine two evaluations of ODL programmes with which you have already become familiar in these materials. We will ask you in particular to compare and contrast the ways in which triangulation has been used in designing and implementing these two evaluations.

**Activity 1 60 mins**

### Evaluating programme implementation: Using multiple data sources and multiple methods for data collection and analysis

For this activity you will need the following resources: *Fentiman*, *Potter et al*, and *Potter – Formative and summative*.

You will also need the evaluation design tables, notes and working papers you have previously made on these two evaluations.

#### Tasks

- 1 On a sheet of paper, create a table as below:

Fentiman's evaluation: data sources	Potter and colleagues' evaluation: data sources

- 2 Read pages 9-10 of *Fentiman* and list in the left hand column the different data sources *Fentiman* used in her evaluation.
- 3 Now read page 4 of *Potter et al* and list in the right hand column the different data sources Potter and colleagues used in their evaluation.
- 4 Now refer to the results of *Fentiman's* evaluation on the effectiveness and achievements of the SOMDEL programme (these are reported on pages 11-26 of her evaluation report), and answer the following three questions:
  - How were the data analysed?
  - How was triangulation used in the analysis, so as to link data from different data sources and multiple methods?
  - How were the findings reported so as to answer the evaluation questions?
- 5 Now turn to pages 4-9 of *Potter et al* and answer the same three questions:
- 6 Next compare the *Fentiman* and *Potter* evaluations. What were the similarities and what were the differences? Refer to the Potter – Formative and summative reading article for a discussion of the participatory evaluation design used by Potter and his colleagues.

- 7 Now refer back to Figure 3 and decide which type of evaluation was used in the *Fentiman* and *Potter et al* cases. Do these two evaluations fit neatly into one or other of these five approaches, or are they difficult to classify?

*The feedback to this activity is at the end of the unit ►*

## Triangulation over time

As the focus of triangulation is the use of multiple methods in research or evaluation for checking and substantiation, what often occurs in practice is that data collection and data analysis proceed progressively, and in tandem with each other. The evaluator will often use evidence progressively, first forming an overall impression of the logic of the programme and its activities. This mental picture is then used as the basis for further data collection and analysis, to fill in the details.

This is usually done by a process of progressive focusing. This normally involves interlinking data collection and data analyses, which are used to build insights and increase understanding of issues. This is done by using insights about a programme to focus in on and tap more direct sources of evidence (e.g. through interviews with programme staff or programme beneficiaries), which are used for purposes of substantiation or clarification.

Use of progressive focusing implies that both data collection and data analysis proceed in alternating stages, using different sources of evidence as necessary for cross-checking and substantiation. This may involve procedures for clarifying or verifying verbal and/or numerical content, issues raised in interviews as well as the visual features and form of programme documents and records.

## Triangulation through repeated interviewing

Interview and self-report data are particularly useful for progressive focusing on issues. Repeated interviewing with particular informants (e.g. particular members of the programme staff, or particular participants in or beneficiaries of programmes) is often used as a way of clarifying issues, and coming to understand the reasons behind the way in which a programme works in practice.

Informants need to be persons with a high level of insight into the programme's work. Repeated interviews with programme staff informants may be particularly valuable for purposes of clarifying, verifying or substantiating how a programme's logical framework applies in practice.

The reason for this is that programme staff have usually been physically present at the time programme activities took place, and can provide a perspective on the development of a programme over time.

### Focusing

Triangulation is often used for progressive focusing on programme issues.

This involves building insights and understanding about the programme's work.

### Repeated interviews

Repeated interviews are commonly used for progressive focusing on programme issues.

This involves identifying informants who have a high level of insight into the programme's work.

They also enable the evaluator to establish what is taking place currently and what is planned for the future, and to identify what has taken place in the past affects current activities and planning.

Repeated interviews with programme beneficiary informants may also be of particular value for purposes of clarifying, verifying or substantiating whether the programme's activities are of practical benefit, and whether the benefits are consistent and effective. The procedures for repeated interviewing here will involve tapping the perspectives of persons who have participated in the programme's activities, and who have developed expectations about what the programme will achieve in practice.

Programme documents and records are often used in combination with self-report data to progressively focus on issues. Fetterman (1983; 1989) has suggested that the process of data analysis, verification and substantiation normally proceeds until a stage of certainty is reached. This is a stage of understanding where all the different elements in the data tie together, and the programme makes sense.

As Basson (1999: 218) has commented:

*'Understanding needs to precede adjudication, if a programme is to be evaluated for what it is, rather than for what an evaluator may presume it be.'*

Put another way:

*'How is it possible to judge the value of a programme which you do not understand?'*

## Achieving the right balance

Triangulation is also used to verify or substantiate evidence from one data source with evidence from other sources. To get the balance between what is rigorous and what is simple enough to be clear and easily understood by the audience of the evaluation is difficult to achieve in practice. It may be better to create a simple evaluation design using multiple methods and implement it well, than a large and complex design which is poorly executed or loses the reader in the detail.

Patton (1987) suggests that it is important in an evaluation to be involved as much in experiencing programmes as possible, while maintaining an analytical perspective. The rule of thumb is to keep an evaluation focused, and to ensure that the readers of the evaluation report can follow your focus. As Rosenthal and Rosnow (1991) suggest, good researchers 'think Yiddish, but write British' (i.e. plan research creatively; write it simply and directly).

Perhaps the best way to demonstrate what this means in practice is to ask you to read an evaluation report which has been rated by a number of different audiences as having achieved a balance between effective evaluation design, appropriate sampling procedures, use of multiple of methods, well

controlled data collection, rigorous data analysis, use of triangulation to substantiate trends, and clear, direct reporting.

The evaluation design is simple, and the evaluation report written in a vivid, interesting and accessible style. At the same time, based on perceptions of credibility and rigour, the results have been influential.

## Utilisation of methodology and findings

Utilisation of evaluation findings is related to both their truth value and utility value (Weiss and Buccalavas, 1979). This implies that an evaluation report needs to be scientifically rigorous, and at the same time clearly presented in a journalistic style that links its findings with the informational needs of its audience.

The engineering education programme evaluation report you will read in the next activity was originally intended for corporate decision-makers and for internal programme use, with a print run of 200. However, it was perceived by a group of academics to have wider implications.

It was thus published in a report and reprint series by the University of the Witwatersrand's Centre for Continuing Education, with a print run of 300. These copies were used by students and academics who were lobbying for the integration of student residences on South African university campuses (which were segregated in terms of the prevailing apartheid legislation of the time).

By the late 1980s the integration of university campuses had been achieved. The study was, however, still in demand, and it was then reprinted in 1991 with a further print run of 300. At this point it had already been referenced in a number of studies in higher education and in related theses and journal articles. It was then subsequently reprinted twice in the early 1990s, each time with a print run of 300.

After the change to democratic governance in South Africa had taken place, the study was summarised into course material format and used together with the original report in a number of post-graduate research and evaluation courses, being reprinted for course development purposes by the university's Department of Psychology in 1996 and 2001. At this point in time (2004), the original report has run to over 2000 copies. Comments made by post-graduate students that they still find the study relevant on a methodological level. It provides a model of how to integrate the data from different data sources, and how to report the findings of an evaluative study in a vivid and accessible way.

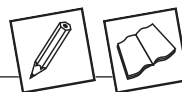
As with many other evaluations which are conducted rapidly and under exigencies of time and limited resources, there are limitations in the methodology used as well as in the way the results of the investigation have

An evaluation report thus needs to be:

- simple
- direct
- focused
- relative to the informational needs of its audience.

been reported. We will ask you to identify and discuss these in the next activity.

## Activity 2 60 mins



### Evaluating programme implementation: using questionnaires and focus group interviews to investigate the study habits and attitudes of university students

This activity is based on the resources *Potter – Engineering and Potter – Questionnaires*.

#### Tasks

- 1 What were the purposes of the engineering education programme evaluation, and where were these stated in the report?
- 2 What were the evaluation questions, and where were these stated in the report?
- 3 What were the two instruments used to collect data from the students?
- 4 What additional data source besides questionnaires and focus group interviews was used in the analysis? How important do you feel the third data source was, in analysing and interpreting the questionnaire and focus group data?
- 5 In terms of the three data sources, what were the indicators used in answering the evaluation questions? Where were these mentioned in the report?
- 6 How was triangulation used in
  - data collection?
  - data analysis?
  - integration of findings for the purposes of writing the evaluation report?
- 7 What were the main findings of the evaluation? How were these communicated to the audience in the report? What recommendations were made? Whose recommendations were these?
- 8 Why do you think the authors chose to use a simple style in writing the evaluation report?
- 9 Why do you think the authors included direct quotations from what the students had said and written in the evaluation report?
- 10 Do you think an additional section at the end of the report, summarising the main findings, would have added or detracted from the way in which the results of the study were reported?
- 11 Do you think a more complete methodological section would have added to the report, or was what was provided sufficient for you to understand how the evaluation was conducted?

12 Can you think of additional ways in which the evaluation report could have been made even more vivid and accessible to the reader?

*The feedback to this activity is at the end of the unit ►*

## Strengths and weaknesses in evaluation reports

In essence, evaluation reports aim to communicate to the reader the main elements of the process followed in designing and implementing an evaluation, and the results, findings and recommendations. For example, you have just read a report with the following structure:

- at the beginning of the report, the evaluation purposes and focuses were outlined
- the nature and size of the sample were stated
- the data sources and methodology followed in collecting the data were summarised
- instruments used in collecting the data were described
- the methods used for analysing the data were outlined
- headings were chosen reflecting themes in the analysis which related back to the measurement focuses of the study
- trends from the analysis were then reported outlined under these heading
- an abstract was written in which the main findings of the study were summarised and recommendations made.

### Evaluation reports

Should communicate the main elements of the:

- evaluation design
- methodology
- results
- findings
- recommendations.

As an evaluation normally consists of many interlinked elements, there are usually strengths and weaknesses in any evaluation report.

In common with many other evaluative studies, there were certain strengths and certain weaknesses in the ways in which measurement data were collected, analysed, integrated and presented in the evaluation report you read in the last activity. It is to these that we now turn in the concluding sections of these materials.

## Measurement focuses in the evaluation design

The title of a report is normally used as a way of focusing the reader's attention on the measurement focuses of an evaluation. If the title names a particular programme, or a particular year or time period, it becomes clear to the reader that the report is likely to present evidence about a particular programme at a particular time.



In the evaluative study you read in the last activity, the title of the report conveys clearly the type of information which will be presented in the report. The terms 'study habits' and 'attitudes' are used. The type of sample is also mentioned in the title.

These focuses are then carried over directly into the evaluation design. The study could be faulted in that clearly stated working (i.e. theoretical) definitions of these terms are not provided in the report. However, to have done so would have meant conducting a thorough literature survey in an area in which different theorists have different views and do not agree. The researchers did not do this. Had they done so, the report would have been far longer, far more theoretical, and would perhaps have lost the reader in the process.

However in reporting the data, what was meant by study habits and attitudes was made clear. One of the strengths of the study, which is perhaps the major reason why other students have found it useful in their courses, is that the researchers used an accessible and simple style in presenting the measurement data in the report.

The study used an evaluation design based on multiple methods in both measurement and analysis. It thus involved use of triangulation for collecting and analysing different types of measurement data, and use of triangulation in integrating and reporting common trends or themes in these data.

## Using triangulation

### Using triangulation in collecting data

On the methodological level, the evaluators made it clear to the reader that triangulation had been used in a number of ways in the investigation. However, in line with the accessible style of the report, they used the term 'multiple methods' in preference to the term 'triangulation' in the report. They also did not include other technical terms or jargon such as 'data sources' in the report, for which specialist knowledge or background on the part of the reader would be necessary. Instead, the evaluators used the more accessible term 'sources of content'. They thus described the methodology used in the study practically and operationally, but in such a way that other researchers or evaluators would be able to conduct other similar investigations with other samples of students.

There were areas of the report, however, in which the measurement focuses of the study could have been better described. In particular, far more detail could have been provided on the instruments used in the study, and how items in the questionnaire and focus group interview schedule related to the evaluation questions as well as the indicators on which the evaluation was based. These weaknesses at the design level also affected other areas of the report.

In the following sections, we will thus examine the report further, and discuss strengths and weaknesses in data collection, data analysis and integration of findings in more detail. Particular attention will be paid to the issue of the relationship between evaluation questions, samples of evidence, instruments, and evaluation findings, as these apply to the measurement focuses of the study.

## Using triangulation in collecting samples of evidence

In describing the ways in which triangulation was made possible through the measurement procedures involved followed in data collection, the evaluation report you read in Activity 7 was very clear. Each of the focus groups involved a distinct group of ten students, representing a sub-sample based on a particular year of study in one of five different types of engineering degree. Each student was asked to complete a questionnaire, and bring the completed questionnaire to a focus group discussion.

This design enabled the data from each sub-sample to be treated as a different data cell, which provided measurement data of two types:

- ▶ written content from questionnaires filled in by each member of the group prior to the group interview
- ▶ spoken content from the group interview, facilitated by one researcher, and recorded both by tape recorder and in terms of field notes.

The report made it clear that the sampling strategy had enabled the collection of data from each of these samples of students separately. A strength of the report was the way these samples of evidence were treated separately in the analysis, and then used to link trends in data and between instruments.

## Using triangulation between instruments

The researchers made it clear in the report that two separate instruments had been used to collect the data. A questionnaire and focus group interview schedule were alluded to, but issues relating to the measurement focuses of these instruments were not well dealt with. As copies of the instruments were not included in the report, the reader was left to surmise what type of questions/items had been included in the instruments. Nor was it clear from the report how the instruments had been developed and piloted.

It was clear from the report, however, that in collecting the data, the researchers had available not only written questionnaire responses from each student, but also their spoken comments in the focus group interviews. A strength of the study was that there was a separate researcher who recorded the process of the interview, and who mapped out in her field notes where each respondent was sitting in the room. This information on where different speakers were seated could then be related in the analysis to how the students had performed academically in their previous year of study.

It was clear from the evaluation report that the interviews were tape recorded. Transcriptions of the interviews were not made. This is a weakness of the study, but this was unavoidable, as the evaluation had to be completed within a month from data collection to write-up of report. However, the fact that two researchers were involved in the focus group data collection (one conducting the interview and the other making the tape recording and taking field notes of the process followed in the discussion) meant that additional levels of analysis were possible in each group interview:

- ▶ the tape recording of the interview, which was a record of what was said as well as how much time was devoted to each aspect of the interview
- ▶ the researcher's field notes, which recorded the process of the discussion, and also related this to where students were physically seated in the room.

However, while one was reasonably clear as a reader that a questionnaire and interview had been used in collecting the data, it is not clear from the report what questions the students had been asked. Detail on the instruments used in the evaluation, and how these were designed is also missing. This is a weakness of the study, to which we have already referred. As this weakness affected the study in other ways, we will refer to this aspect again in more detail, as this applies to the analysis and reporting of the results.

### Using triangulation between investigators

Another strength of the investigation lay in the use of multiple investigators, and the use of their perceptions of issues raised in the focus groups and the process of the focus groups as an additional data source in the evaluation. A weakness was that though this source was alluded to, the main sources of quotations included in the evaluation report was from the focus group interviews and questionnaires, leading a reader to suspect that the perceptions of the interviewers was used as a secondary data source for purposes of clarification and substantiation rather than as a primary data source in its own right.

Another methodological strength was the previous experience and training of the researcher who made the notes and recorded the process of the focus group interviews. This person was both trained and experienced in assertions analysis, and was thus familiar with how to write and then code verbal data in assertions format. This was done in building the record of the interviews. It was then possible from the record to identify the logical thread which ran through the interviews, identify which students had contributed at particular points in the interview process, identify the assertions made, check the wording in the original tape recording for the exact wording of a quotation, and also check the assertions made by the students in response to similar questions in their questionnaires to check opinions expressed prior to the focus group interviews.

The transcripts produced were then checked by each of the evaluators. This step enabled each written transcript to be triangulated with the evaluators' notes from the focus group interviews. The questionnaire data were at this stage kept separate, to prevent contamination of the focus group data.

It will thus be evident that investigator triangulation took place at different stage in the investigation. This could have been more fully described in the report. Had this type of description been included, however, it might have detracted from the accessibility of the report, and its journalistic impact. A solution would have been to produce a separate set of appendices containing methodological detail.

## Using triangulation in organising and analysing data

In the evaluation report you read in the last activity, the procedures followed in organising the data made it possible to analyse measurement data for each sub-sample separately. Assertions analysis (a form on content analysis) was the procedure used to analyse the data. This involved coding of the data into themes, and then checking for similar assertions made both within and across different student groups.

At this stage in the analysis, colour coding was used to identify the existence and frequency of recurrent assertions as indicators of firmly held beliefs in students about issues. The source of these attributions could be then traced to individual students in terms of the seating plans in the interviews, and then further analysed to identify whether similar assertions were made by:

- ▶ students involved in similar or different years of study
- ▶ students involved in studying similar or different engineering degrees

students who were performing academically at similar or levels in terms of their previous academic grades.

Frequency data on recurring themes in the data were thus available to the researchers, as well as the actual words used in the focus groups in response to particular questions in the focus group interview schedule. The written responses of the same students in their previously completed questionnaires were also available. Based on these different levels in the data, the results were able to be reported specifically, and supported by direct quotations from the questionnaires and tape recordings of the interviews.

It was also possible from the records of seating arrangements to attribute themes in the data to particular students. In this way, the study habits and attitudes of academically proficient students as opposed to those students who were performing poorly academically could be identified.

Besides the ability to be highly specific in the analysis, another strength of this type of triangulated analysis was that recommendations could be reported in such a way that it was the students' recommendations on issues which were highlighted, as opposed to those of the researchers. This was done as the

evaluation report formed one of several, each of which examined a different aspect of the problem.

## Using triangulation in reporting results

A strength of both the implementation and reporting of the investigation was that the measurement focuses in the title and the evaluation design were carried through into both data collection and analysis. This enabled themes in relation to the measurement focuses of the evaluation to be identified and cross-checked. The words used by students were then able to be used in the evaluation report to represent the perspectives of a particular group of stakeholders in the programme, who were also main actors in the academic context in which the programme was implemented.

The data presented in the evaluation report were verbal as opposed to numerical data, and an analysis which was essentially qualitative rather than quantitative. Nevertheless, the impression is given in the report that the procedures used in the analysis were systematically and thoroughly applied, and the depth of rigour exercised in keeping data cells separate from each other in the analysis came through clearly in the report.

With respect to the measurement focuses of the evaluation, the ways in which triangulation was applied in the analysis meant that quotes relevant to broader themes in the analysis could be included in the report. These themes, in turn, related to the measurement focuses of the study. This was achieved by use of subheadings.

However, because copies of the instruments were not included in the report, its impact on a methodological level was weakened, because it was not clear to the reader what questions had been asked in collecting the data. As a result, there was a lack of clarity as to how the measurement focuses in the instruments related to themes in the analysis and the actual quotes from the data provided in the report.

A solution would have been to produce a separate set of appendices containing methodological detail. These could have been published separately in order to not detract from the vividness of the style used in reporting the results.

## Compensating for potential weaknesses through use of multiple methods

You have seen how triangulation was used to increase the credibility and rigour of two ODL evaluations. Both used descriptive multimethod designs (a design focused on evaluation of the effects of one programme and not comparison of the effects of different programmes).

In the evaluation you read in the last activity, triangulation was also used in a number of ways to compensate for potential weaknesses in a descriptive

evaluation design (a design which focused on the study habits and attitudes of engineering students with respect to one programme, as opposed to comparing study habits and attitudes in different programmes).

It will thus be clear that triangulation involves a versatile set of procedures which can be used in different ways to strengthen multimethod evaluations. This is achieved through use of multiple methods to compensate for potential weaknesses in evaluation design and implementation.

In the engineering study, the researchers made it clear that three sources of data had been used in the evaluation. Two of the data sources were based on what students said and wrote. These data were collected by questionnaire and in group interviews or focus groups. The additional source of data was the researchers' own experience of working in the programme, and their experience in teaching and observing these and previous groups of students.

This additional data source was acknowledged, as it was influential in the data analysis, as well as in the particular aspects of the student data which were highlighted and reported. However, a weakness of the study was that the ways in which this influence took place were not detailed.

There were thus a number of potential ways in which multiple methods were used to compensate for potential weaknesses in the investigation, as follows:

Different types of data were available for analysis. This was a potential strength of the evaluation design, in providing ways of compensating for weaknesses which would have been present in the study had only one source of data been available for analysis.

The researchers were also able to separate the data into different sub-samples or cells. Once this had been done, the data yielded by the different instruments could be analysed in a way that ensured that trends in the data from each instrument could be substantiated both within and across the different data cells in the design. This enabled findings from each instrument as well as data from each area or cell to be compared with findings from other areas or cells. This was another strength in the design, as this form of triangulation compensated for weaknesses which would have been present in the design had the data not been subdivided in this way.

Use of this form of triangulated analysis also enabled measurement trends to be analysed and reported. In the report, this was done using similar headings for each of the different years of engineering study. The use of recurring subheadings in the different sections of the report made it reasonably clear to the reader that similar questions had been used with each of the different student groups. The recurring subheadings also made it reasonably clear to the reader what the questions in the original instruments were, as well as the indicators the researchers used to identify trends relevant to answering the evaluation questions.

### Triangulation to increase rigour

The use of triangulation is an attempt to increase the rigour of a potentially weak evaluation design.

The aim is to increase the credibility of the methodology used in a potentially weak evaluation design.

This is achieved through use of multiple methods to compensate for potential weaknesses in evaluation design and implementation.

However, a weakness of the report was that these links between measurement focuses, instruments and themes identified in the data could have been tighter. With the wisdom of hindsight, the solution to many of the weaknesses in the engineering study would have been to include copies of the original instruments as well as samples of the analyses in a series of appendices produced in a separate volume. This would have enabled the style of the main report to remain simple and uncluttered. It would have enabled the discerning or critical reader, however, to search through the appendices to establish how conceptual links from analysis through to report had been made.

Given the nature and audience of the report, the appendices to the report could have been presented in a separate bound document accompanying the evaluation report. This strategy is often used in reporting evaluations where detail is necessary to clarify how potential weaknesses in the design and instruments would be addressed, including:

- ▶ how the evaluation questions guiding the investigation related to the activities undertaken by the programme, and its aims, objectives and anticipated outcomes
- ▶ a list of indicators used in the evaluation.
- ▶ lists of the interview questions, questionnaire questions, and how these related to the evaluation questions, as well as the programme's Logframe
- ▶ why self-report options (focus group interviews and questionnaires) were the data sources used in the evaluation
- ▶ other methodological options considered (e.g. individual interviews, observation, diaries, personal accounts and case studies)
- ▶ why these options were not chosen
- ▶ potential weaknesses and threats to internal and external validity in the design
- ▶ how triangulation was used to counter weaknesses and threats to validity in the design and instruments used in the study.

## Rigour in multimethod evaluation

In developing instruments to measure outcomes, a commonly used procedure at the evaluation design stage is to draw up lists of indicators to which specific items are then linked. This enables the evaluator to trace a clear line from evaluation focuses and questions, through data collection and analysis, to what is reported in terms of results, and to the findings and recommendations reported at the end.

It is clear from the engineering report how triangulation has been used at data collection, data analysis and data integration stages of the investigation.

The report gives a clear idea of how different types of data can be used in an analysis to complement each other. It also gives a clear idea of how different types of triangulation can be used to compensate for potential weaknesses in the evaluation design.

What is not clear from the report, however, is how specific items in the instruments related to the aims of the research. It is also not possible to establish whether the items used in the instruments were sufficient or adequate to yield the type of data needed to answer the evaluation questions. While evidence is provided as to how data were categorised, additional evidence as to how these categories related back to the indicators used in the study, and how these indicators related back to the original evaluation questions, could have been helpful.

What was not clear was how the measurement data from each instrument as well as data from each area or cell were compared, and aggregated with findings from other areas or cells. The issue of how the researchers actually chose the themes reported was also not made clear. A number of questions about the way in which the process of data integration tied up with the themes actually reported remained unanswered, as follows:

- ▶ How were the themes reported in the report chosen?
- ▶ How directly did these themes relate to the central measurement focuses of the evaluation
- ▶ How directly did the items/questions in the instruments relate to the themes highlighted in the data analysis?
- ▶ Was frequency and recurrence of themes the criterion used for reporting, or was there another way in which important themes were identified?
- ▶ Which themes were omitted from the report and why? In this design, how far did the researchers' own experience influence the selection and reporting of particular themes?
- ▶ Despite these weaknesses in the report, a clear idea was given of the complexities involved in conducting multimethod research, and of identifying and linking themes in evaluation design, implementation, data analysis and reporting of findings. It was also possible to establish from the evaluation report specific ways in which these different levels in design, implementation, analysis and reporting had been addressed on a practical level. The overall impression was thus given of rigour.



## Developing understanding of an ODL programme

The last activity and the discussion in previous sections, have focused on the strengths and weaknesses of a small evaluative study. In ODL evaluations, in contrast, evaluators normally deal with large programmes and large groups, working in contexts and with situations over which they have little or no control.

As a result, the evaluation designs normally adopted by an ODL evaluator are those which are descriptive, and which attempt to demonstrate logical connections and associations rather than cause and effect. Logical connections are demonstrated by presenting evidence that particular programmes have achieved particular results, by showing that similar effects have taken place on large numbers of occasions, and by providing evidence which indicates that similar effects have been observed both in and by large numbers of people.

As the ODL evaluator cannot exert control over the situation he or she is studying, the evaluation designs used have many potential weaknesses. Multiple methods and triangulation are normally used in an attempt to strengthen what are essentially low inference and descriptive designs. On a practical level, this means that the ODL evaluator will need to base the evaluation on multiple sources of data. Besides evidence of results and achievements in programmes (e.g. evidence from performance data based on analysis of programme documents and records), self-report and observational data are also frequently used as measurement data in ODL evaluations.

The two evaluations of the two ODL programmes on which you focused in Activity 1 both used descriptive evaluation designs, relying on self-report data, as well as a large number of other data sources and indicators. Observational data was gathered through fieldwork. In addition, performance data were examined. Programme documents and records were consulted in both evaluations, in order to gain a clear idea of the logical framework underpinning each programme's work.

These similarities are not accidental, but relate to the nature of ODL programmes, and evaluation of large-scale organisations and programmes. Evaluators are normally interested in gathering data which will enable the creation of a sound and complete programme description. This needs to be both broad enough, specific enough and detailed enough to encompass what the programme does, as well as accurate and consistent with stakeholders' experiences of what occurs within the programme.

The reason for this is that before an ODL programme's work can be judged as having value or worth, it is necessary to ensure that the evaluator understands the programme and the issues with which it deals in its everyday work. Stated another way, only once understanding of the programme had been achieved, will adjudication become possible.

## Measurement of outcomes – an integral part of evaluation

Given these realities in the evaluation of ODL programmes, the five units in these materials have focused on measurement of outcomes as an integral part of evaluation design and implementation. The reason for this is that measurement data on outcomes provides focused, specific and objectively verifiable information on programme results.

We have tried to demonstrate that the focuses of evaluation are normally determined through contact between the evaluator, programme staff and programme stakeholders. The initial stage of this contact is normally informal and unstructured, based on the belief that informal and personal contact will enable issues and questions about the programme to emerge. This is then followed by more formal contact, progressively focusing on the issues and questions identified. At this stage instruments are used which enable emergent focuses in the evaluation to surface, and then be explored.

Owing to their large scale, the process of data collection in ODL evaluations normally involves structured contact between evaluator and programme, based on use of instruments developed pre-ordinately, and prior to the contact. To be rigorous, the measurement of outcomes needs to link logically and clearly with the focuses of the evaluation, and with the evaluation questions. This is achieved by use of indicators, to which specific items in the instruments used in the evaluation can be linked.

To be both rigorous and credible, the measurement data in an ODL evaluation need to be clearly linked with the evaluation focuses and questions. This is normally accomplished through a process of negotiation involving:

- ▶ identifying evaluation issues and questions
- ▶ developing an evaluation plan, focused on these issues and questions
- ▶ developing an evaluation methodology to enable the evaluation questions to be answered using evidence from a number of indicators
- ▶ identifying specific items/questions which can yield information in relation to each indicator
- ▶ establishing ways of verifying or substantiating the data yielded by each indicator, so as to demonstrate that the data are stable and reliable, accurate and valid.

Measurement of outcomes thus involves clear specification of evaluation purposes, focuses and questions, as well as the location of or development of particular instruments, consisting of items/questions which can be used to gather data relating to the evaluation questions.

## Measuring outcomes: following the steps

Herman, Morris and Fitz-Gibbon (1987) suggest that observation and measurement are intrinsic to evaluation as an activity. The process followed in developing both formative and summative evaluations involves four phases. Each of these phases has a measurement focus, as it is based on a process of data gathering. Instruments of different types are thus necessary to inform and guide the process in each phase, which culminates in one or more meeting at which decisions are taken about the next information-gathering phase.

The process of measuring outcomes thus forms an integral part of the whole process of evaluation design, implementation and reporting, as follows:

### Phase A: Setting the boundaries of the evaluation

During this phase a plan is developed describing what the evaluator needs to do, as well as what the programme staff and others will need to do to help the evaluator gather information about the programme. This includes establishing what the measurement focuses of the evaluation are and what actions will be taken as a result of the report.

Five questions are normally used to structure this stage of the work, as follows:

- 1 Who wants the evaluation done?
- 2 Why is it being requested?
- 3 What are the most important users and audiences for the findings?
- 4 What will be done as a result of the evaluation?
- 5 What is the nature of the programme being evaluated?

In this phase, the major tasks for the evaluator to do are the following:

- ▶ research the programme
- ▶ encourage trust, cooperation and ownership
- ▶ articulate your understanding of the programme
- ▶ identify the programme's goals
- ▶ record the programme's rationale
- ▶ in a formative evaluation, look for potential problems
- ▶ in a summative evaluation, identify key features and outcomes of the programme, as well as the key policy questions which may underlie the programme's development and continuation
- ▶ identify information from key constituencies and stakeholders to determine the limits of the evaluation

- ▶ outline the services you can provide
- ▶ document your agreement.

## Phase B: Selecting appropriate evaluation methods

During this phase, the evaluation procedures will need to be specified, by completing a number of closely inter-related steps in planning measurement and data collection strategies, targeting exactly what is to be observed and measured, choosing an appropriate design, selecting or developing suitable measurement instruments, conceiving a sampling strategy and making plans to ensure timely data collection.

In this phase, the specification of evaluation procedures will involve a complex interplay between:

- ▶ the specific aspect of programme context, processes, and outcomes on which the study will focus
- ▶ the best and most feasible methods to measure or otherwise observe these programme aspects (i.e. a list of specific measurement instruments which you need to either purchase or develop and/or sources of information for other data collection methods)
- ▶ the design and sampling plan for administering or enacting the chosen methods and gathering measurement data
- ▶ the logistical plan that will enable completion of the evaluation tasks within a specified schedule

Whereas Phase A normally culminates in an evaluation brief and an agreement to proceed with evaluation design, Phase B normally culminates in a final contract, based on a complete set of plans and schedules for conducting the evaluation. These usually include the measurement instruments to be used and/or a statement of how the indicators and variables on which the measurement side of the evaluation will be based, as well as a statement of the costs of gathering these data and completing the evaluation.

## Phase C: Collecting and analyzing information

During this phase, the data collection and analysis plans proposed in Phase B are put into effect. Depending on whether the procedures for data collection are primarily quantitative or qualitative, or a combination of the two, the process involved in gathering measurement data may vary considerably.

If the data are more qualitative, or the evaluation is formative in character, the evaluator is likely to move back and forth between collecting data and analysing them, using an inductive process as the answers to evaluation questions are developed and refined. This may involve engaging in repeated cycles of data collection, analysis and reporting.

If the data are more quantitative, or the evaluation is summative in character, the process of data collection and analysis may be more linear in character. The measurement focuses of the evaluation are also likely to be more tightly specified, and based on a strategy of gathering and then testing measurement data to see whether inputs lead to outputs, causes lead to effects, and whether intended outcomes are actually being achieved in practice.

Whether the evaluation methodology is more quantitative or qualitative, and data collection and analysis more fluid or more linear, the concern of the evaluator will lie with validity and credibility. Specifically, ensuring that procedures used in measurement, data collection and analysis are valid and well justified and substantiated, and that interpretations are grounded in the data.

In this phase, the major tasks for the evaluator to do are the following:

- ▶ apply the strategy for collecting the data
- ▶ organise the data collected
- ▶ analyse the data in such a way that trends from the analysis are clearly linked to the evaluation focuses and questions.

## Phase D: Reporting findings

During this phase, the reporting mode for evaluations can vary, according to the nature of the evaluation brief agreed in Phase A. Much of formative reporting takes place in conversations and discussions that the evaluator has with individuals or groups of programme staff. The form of the report will depend on:

- ▶ the reporting style with which the evaluator and the programme's staff and other stakeholders is most comfortable
- ▶ the extent to which official records are required
- ▶ whether the brief is to disseminate evaluation results only among programme sites, or to interested outsiders and the general community as well
- ▶ how soon the information needs to reach its users in order to be useful, and
- ▶ how the information will be used, and how users are involved in the evaluation process.

A schedule specifying interim reporting procedures (either written reports or verbal reports involving face-to-face presentations or meetings) normally forms part of the evaluation contract. The final evaluation report is normally a written one.

In this phase, the major tasks for the evaluator to do are the following:

- ▶ write up the report
- ▶ write up an executive summary, detailing the major features of the evaluation, and its findings and recommendations
- ▶ present the executive summary to stakeholders orally, before presentation of the written report
- ▶ discuss the implications of the findings and recommendations with stakeholders
- ▶ present the written report and executive summary to those who commissioned the evaluation.

It will be apparent from the above that measurement aspects of an evaluation are intrinsic to the processes involved in focusing an evaluation, establishing evaluation questions to guide the evaluation process, deciding on data sources and instruments, developing a sampling strategy, collecting and analysing data, integrating trends from measurement data of different types, and reporting results.

These different aspects are normally reflected in the evaluation design table summarising the design. They also inform the actions of the evaluator in implementing the evaluation, and have formed the focuses of these five units of materials.

## Final comments: limitations of these materials

We hope you have enjoyed working on these materials as much as we have enjoyed preparing them. Programme evaluation is a rapidly expanding field, and we hope you will join us in the practice of conducting evaluations of ODL programmes.

We must stress that these materials have limitations. Their aim has been to provide you with an overview of the procedures followed in evaluating ODL programmes, with particular emphasis on the measurement of outcomes. The view of evaluation we have presented is of necessity selected, and has been limited to use of a logical framework or Logframe approach, based on a systematic view of evaluation.

You will thus need to treat what we have provided you in this handbook as a starting point. There are many approaches to conducting programme evaluations, and we hope you will extend your knowledge and read about them. We have provided a number of suggested readings at the end of each unit, and also provide you with some recent references at the end of this unit. These provide a basis for developing additional knowledge in the field.

We would suggest that you start with a systematic view of evaluation (e.g. Rossi, Freeman and Lipsey, 1999), as this is likely to build on what you already

know. You can then use this knowledge base, and extend it by reading about other evaluation approaches and models.

## Values, standards, propriety and good practice

Another limitation of these materials is that there are many additional dimensions to programme evaluation which we have not covered. While these materials have focused on issues relating to measurement, credibility and rigour in programme evaluation, there are also other important dimensions in evaluation on which we have not touched in these five units. There are concerns about values, standards, propriety and good practice, for example (Joint Committee on Standards for Educational Evaluation, 1981), which lie beyond the scope of what we can cover in an introductory module.

It is to these issues in ODL evaluations that we now allude, in concluding these materials.

## Why are moral and ethical issues important in the evaluation of ODL programmes?

The development of programme evaluation as a field can be traced back to the work of Ralph Tyler in the Eight Year Study (Smith, 1943; Tyler, 1949). The departure point for the new field stemmed from Tyler's choice of the term 'evaluation' as distinct from 'assessment' to emphasise the evaluator's concern with value, and values in educational and social programmes.

There are both moral and ethical dimensions, which are important to ODL evaluations. Kjell Askeland, for example, comments on the potential for distortion and bias through personal and economic interests in evaluations (SOFF, 1994: 68) as follows:

*'Since all evaluation in one way or the other involves an assessment and a message, the moral aspect will always follow as an extra weight to the load.*

*Evaluation is about conditions between people, and their life situation. This means that we must always have the question of 'personal interest' clear when we take part in evaluation work.*

*If you are the person who is evaluating you can be almost certain that you will want to present what is positive in the project. Information you give to others about the report will be coloured by this. This means that you will try and present what was good, and try and 'explain' or 'understand' what didn't go quite so well.*

*There are three conditions that contribute to this and it is not just your wish to be pleasant and friendly. We can point out, for example, that in research work it is often the positive results that give a greater credit than the negative results.*

*Beside the need to be positive we must also be aware that we are working in an area that is of economical interest. If one is working with a project that has received small resources one may feel that there will be a greater chance of further economical help if a positive report is presented. On the other hand if we*

*are critical and say so, we can assume that we will receive less help with the future development of the project, or even feel that we influence what will happen in the case of help for other projects.'*

Evaluators of ODL programmes need to be aware of dangers of bias and personal interest. They should also be aware that in evaluating programmes, they themselves are judged by those involved in programmes, not only in what they produce, but how they go about their work.

Askeland suggests that one way to counter personal and economic interests is to open evaluations up for public scrutiny. The evaluator also needs to seek feedback and criticism from the audience of the evaluation report. As Askeland comments (SOFF, 1994: 69):

*'It is important that our findings in a similar way to other scientific research work become public knowledge so that others working in the field or the public as a whole can express their meaning about what is happening. Either as correction or as good ideas. Therefore it is important that although some of our reports do not have the character of formal 'research', we should publish them ...*

*It is not enough to just write a report and be satisfied with this. We must give the reader a chance to react by writing our report in such a way that the reader can focus on what is essential. It is only in this way that our reports can be used in professional debates about technology and how it can be effectively put to use in distance education, so that one's efforts are equivalent to one's profits.'*

Our best wishes with your evaluation work.

## References and further reading

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## Feedback to selected activities



### Feedback to Activity 1

#### 6 Similarities and differences

Evaluation models and approaches differ, reflecting not only the different purposes for which evaluations are conducted, but also different assumptions on the part of the evaluator concerning the nature of evaluation as activity.

#### 7 Approaches to evaluation

Stecher and Davis (1987) suggest that there are five main approaches to evaluation. These involve:

- 1 experimental
- 2 goal-orientated
- 3 decision-focused
- 4 user-oriented; and
- 5 responsive evaluation methodologies.

In terms of Stecher and Davis' classification, *Fentiman's* evaluation would appear to be a goal-oriented model, in its emphasis on a logframe approach to evaluation, the programme's goals and objectives and how these can be measured or assessed. *Potter's* evaluation would appear to be both an experimental evaluation, in its emphasis on measuring programme effects using performance tests, as well as a responsive evaluation, in its emphasis on involving the different people who have a stake in the programme in the evaluation design, as well as its emphasis on including their different points of view in implementing the evaluation and reporting the data.

Both *Fentiman* and *Potter* used multiple methods in conducting their evaluations. *Potter's* evaluation used a participatory evaluation approach, which involved the programme staff and teachers in different aspects of the evaluation process. *Potter's* evaluation is thus more difficult to classify, indicating

that different evaluation approaches may share similar methodologies but have different characteristics.

A number of authors have written about different evaluation models and approaches, and have developed different classifications of the types of evaluation designs used in programme evaluations.

For readings on different evaluation models and approaches, you may wish to refer to: Popham, W. 1975, House, E (1983) and Potter, C. (1999).

## Feedback to Activity 2

### 2 The evaluation questions

In reporting evaluations, it is important to ensure that audiences first understand the nature of the programme and then the nature of the evaluation and its purposes.

### 4 Additional data source

It is then important to outline the methodology used in the evaluation clearly. In this evaluation a very simple design was used. There were two main data sources. The strength of the design lay in the fact that responses to the two instruments (a questionnaire and a focus group interview schedule) were obtained from 158 out of a possible 160 students in the sample.

### 5 The three data sources

The additional data source was the integration discussions which occurred immediately after each interview, in which interviewers pooled their perceptions of the process as well as the verbal and non-verbal responses to the interview. This data source was thus based on observation, as well as interpretation of responses heard, and observed.

### 6 Use of triangulation

At the stage of data collection, both methodological and investigator triangulation were used in all the focus group interviews, which involved use of an interview schedule, as well as collection of questionnaire data. At the stage of data analysis the themes raised in the interview and questionnaire responses were then analysed across cells, enabling a further form of triangulation to be used (combined levels of triangulation). This involved tagging information concerning the academic performance of respondents in their previous year of study on to each theme.

The evaluation design thus enabled linking of trends across the stratified layers of the sample. Colour coding was used to enable the stratification to be retained through the process of integrating trends in the data, through to reporting results of the analysis.

In terms of Denzin's (1970) classification of different forms of triangulation, the type of triangulation used in the evaluation involved what Denzin refers to as

investigator triangulation, methodological triangulation, and combined levels of triangulation.

## 8 Choice of style

There are a number of authors who offer good advice on how to structure evaluation reports. Patton (1978; 1980; 1982) has suggested that evaluations should be conducted with utilisation clearly in mind. This includes reporting in a way which is accessible to the intended audiences of the evaluation report.

Concerning style, Krieger (1988) suggests that this is secondary to the primary aim, which is to get a draft of the report finished. He states (1988: 410) 'Your aim is to get done. First, a draft. Then you can fix it. Try not to worry about your career or God's judgement. Just get done.'

As Weiss (1998) suggests, writing well is a difficult task but is learnable and doable. The secret to writing is to keep writing.

To write clearly and simply, it is necessary both to retain focus, and not cloud the issues with too much detail. In this evaluation report, the main strengths lie in the simple style and retention of focus.

## 9 Use of quotations

The inclusion of direct quotations enables a vividness of reporting. One of the values of qualitative research is that it enables direct representation of what respondents actually said. This is often a highly effective device in reporting results.

## 10 Summary

A summary was included at the front of the report rather than the back. Having a summary at the end as well as an abstract at the beginning would have involved repetition, which is why the authors did not use this device. They also wanted the audience to end their reading with their own reflection on the data, as opposed to someone else's summary.

Had an additional section been included at the end of the report, summarising the main findings, this would have drawn attention of the audience to the main themes arising out of the analysis. These would then have been stressed again in the abstract or executive summary at the beginning of the report. Whether this would have increased the report's impact is arguable.

## 11 Methodological section

This would have been a definite improvement on the report. The authors did not include a great deal of detail on this for the reason that they felt that it would detract from the impact of the report with its primary audience, which was a group of corporate decision-makers.

However, after the evaluation was completed, there were a number of other audiences who would have benefited from a more fully described and more complete methodological section. The answer would have been to include this type of detail in an appendix, probably published separately from the main report.

## 12 Other improvements

Weiss (1998) suggests that the report for evaluation sponsors should be addressed directly to the questions underlying the evaluation. She states (1998: 295), 'Give the main findings up front.' However, Weiss also suggests that different audiences have different needs. A comprehensive report is usually required for the study's sponsor and interested programme managers. However, another audience may find that this tells too much. Briefer, more modest versions can be custom made for audiences which require capsule versions of the central findings. This would imply different reporting styles for different audiences. It would also imply that one size does not necessarily fit all.

For additional readings on reporting of evaluations, you may wish to refer to: Becker, H. (1986), Krieger, M. (1988) and Weiss, C. (1998).

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Dr Alicia Fentiman and the International Research Foundation for Open Learning, Michael Brophy and the Africa Educational Trust for permission to use, as a reading, Fentiman, A. 2003 *SOMDEL: Somali Distance Education Literacy Programme (Maccalinka Raddiya)*, report prepared for African Educational Trust by the International Research Foundation for Open Learning (IRFOL), Cambridge: IRFOL

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The United Nations Population Fund (UNFPA) for permission to quote extensively from UNFPA 2001 'Glossary of Terms', *The Programme Manager's Planning, Monitoring and Evaluation Toolkit*, at [www.unfpa.org/monitoring/toolkit.htm](http://www.unfpa.org/monitoring/toolkit.htm)

Professor Charles Potter and the Department of Psychology, University of Witwatersrand for permission to use the following publications as reading material within this module:

- ▶ Potter, C. 1998 *What is evaluation? A workbook*
- ▶ Potter, C. 1999 *Using questionnaires and focus group interviews in an evaluative study*

Professor Charles Potter and the Centre for Continuing Education, University of Witwatersrand for permission to use, as a reading, Potter, C., et al. 1991 'Study habits and attitudes of students in five engineering disciplines', *Report and Reprint Series no 7*

The Commonwealth of Learning, the Asian Development Bank and Professor Marg Beagley 2000 for permission to use the Open Access College case study prepared to accompany the *The Training Toolkit Series*, available at <http://www.col.org/programmes/training/toolkits.htm>

Gordon Naidoo of the Open Learning Systems Educational Trust and Professor Charles Potter for permission to use as the basis for various readings, C. Potter, A. Arnott, I. Hingle, J. Mansfield, L. Mashishi, M. Mentis and S. Nene. 1995 *The development and implementation of 'English in Action' in South Africa 1992-1994*, Braamfontein: The Open Learning Systems Education Trust

The Association for the Study of Evaluation in Education in South Africa (www.aseesa-edu.co.za) for permission to use, as a reading, Potter, C. 1993 'Formative and summative evaluation design for a radio learning project' *Journal of Educational Evaluation* 3, 1:3-10

Oxford University Press in South Africa for permission to reproduce a diagram from p. 343 of Babbie, E. and Mouton, J. 2001 *The practice of social research* (South African ed), Cape Town: Oxford University Press in South Africa

SOFF (The Norwegian Agency for Flexible Learning in Higher Education) 1994 for permission to quote extensively from *A guide for developing and evaluating distance education projects*, Tromsø: University of Tromsø

Sage publications for permission to represent in diagrammatic form content from p.40 of Stecher, B. and Davis, W. 1987 *How to focus an evaluation*, Newbury Park, CA: Sage Publications and p.105 of Patton, M. 1987 *How to Use Qualitative Methods in Evaluation*, Newbury Park, CA: Sage Publications

# Resources File

The readings for this handbook appear in the following order below:

- 1 Fentiman, A. 2003 *SOMDEL: Somali Distance Education Literacy Programme (Maccalinka Raddiya)*, report prepared for African Educational Trust by the International Research Foundation for Open Learning (IRFOL), Cambridge: IRFOL
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(<http://www.col.org/programmes/training/toolkits.htm>)
- 5 Potter, C. et al. 1995 'Evaluation of the pilot phase of the Radio Learning Programme', in C. Potter., A. Arnott., I. Hingle., J. Mansfield., L. Mashishi., M. Mentis and S. Nene. *The development an implementation of 'English in Action' in South Africa 1992-1994*, Braamfontein: The Open Learning Systems Education Trust. **Note: read pages 1-3 for Activity 3 Unit 3 and pages 3-30 for Activity 1 Unit 5**
- 6 Potter, C. 1995 'Formative and summative evaluation design for a radio learning project', *Journal of Educational Evaluation* 3, 1: 3-30.
- 7 Potter, C. 1999 *Using questionnaires and focus group interviews in an evaluative study*, Department of Psychology: University of the Witwatersrand.
- 8 Potter, C., Meyer, M., Scott, A. and da Silva, M. 1991 'Study habits and attitudes of students in five engineering disciplines', *Report and Reprint Series no 7*, Centre for Continuing Education: University of the Witwatersrand.

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