



Results-Based Monitoring and Evaluation at the Commonwealth of Learning

A Handbook

Glen M. Farrell

Commonwealth of Learning
Vancouver
2009

The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to encourage the development and sharing of open learning and distance education knowledge, resources and technologies.

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Foreword

COL has made significant progress in integrating monitoring and evaluation into its organisational and programme processes over the course of its 2006-2009 Plan period. However the application of results-based monitoring and evaluation (M&E) is, by definition, a process of continuous improvement. COL, like many other organisations adopting results-based management (RBM), has matured over the last six years and developed a simple model based on its own processes and experiences. I am very grateful to Dr. Glen Farrell, Senior Consultant, who kept pace with these changes and captured them so effectively in this handbook.

As we enter our next Three Year Plan 2009-2012, the emphasis will be on rigorous internal monitoring and formative assessment/evaluation. We anticipate three areas that will need constant attention. One, the challenge of defining and verifying the results of our work if we are to meet stakeholder expectations of evidence-based reporting. Two, the particularly important and challenging task of capturing data pertaining to the cross-cutting themes of our programme, particularly, gender related outcomes. Three, at a more macro level we need to improve our ability to assess and describe the impact of our interventions. COL works closely with its partners. What developmental outcomes can be fairly attributed to COL's interventions as distinct from those of the partners with whom we work? These three areas must be our priorities for the next triennium as we continue to improve and embed our M&E processes.

This handbook is intended to serve as a resource for both COL staff and partner organisations. It is also a dynamic document which will benefit greatly from your comments and suggestions. All communication in this regard will be gratefully received.

Professor Asha Kanwar
Vice President
The Commonwealth of Learning

Introduction

Why this handbook?

Development organisations are sometimes accused of setting unclear goals and of reporting more about programme activities and processes than about the results achieved. Such approaches to monitoring and evaluation make it difficult to communicate programmes to stakeholders and to justify requests for money, people, facilities and other resources from potential programme funders.

The application of results-based monitoring and evaluation is, by definition, a process of continuous improvement.

These concerns have led most development organisations to adopt the model of results-based management (RBM), which focuses on achieving results, implementing performance measurement and using the feedback to learn and change. RBM is an approach to programme planning and management that integrates strategy, people, resources, processes and measurements to improve decision-making, transparency and accountability.

A RBM model requires that results be described in a sequential hierarchy, beginning with specific shorter term results that, when achieved, lead to achievement of broader long-term results. The model is then completed by designing the monitoring and evaluation (M&E) processes that will be used to assess the achievement of results, allocating resources on the basis of the activities required to achieve the specified results and reporting performance results to stakeholders.

The Commonwealth of Learning (COL) began the adoption of a RBM model with its 2003–2006 Three-Year Plan. This led to a significantly increased emphasis on M&E in the development of the 2006–2009 plan. Staff received

training in M&E as an integral part of RBM to improve their ability in providing evidence-based reports about the results achieved.

While much progress has been made and many lessons have been learned over the course of implementing these three-year plans, the application of results-based monitoring and evaluation is, by definition, a process of continuous improvement. This handbook is part of COL's commitment to that end. More specifically, this handbook is intended to address the following needs:

1. COL programme results are typically achieved through partnerships with other organisations. Therefore COL needs to share with its partners an understanding about how it applies the RBM approach to programme planning. Partners should be able to articulate how their relationship with COL supports achievement of the results sought by each of their own organisations.
2. COL partners are essential participants in COL M&E processes as providers and collectors of data about the achievement of results. COL partners need to understand how M&E is integrated with RBM in order to be involved in planning for its practical implementation.
3. New COL staff require reference material about the application of results-based M&E because there is a continuing need for a shared understanding of RBM and M&E concepts and terms within the organisation.

Using this handbook

The content of this handbook is organised into short chapters that allow readers to use the material as needed. For example, the reader who is already familiar with the background information on the Commonwealth of Learning or the RBM model provided in Chapters 1 and 2 may want to skip ahead to the later chapters on developing and implementing M&E plans.

The reader should also be aware of the terms COL uses to describe concepts that are central to its work. For example, “open and distance learning” is used generically to refer to a wide range of technology-mediated learning models that include e-learning, blended learning, virtual education, distance education, mobile (M) learning, etc. The term “results” refers to what others may call

“objectives,” “goals,” “purposes” or “ends.” The different levels of results are referred to as “impacts” (long-term results expected from an intervention programme), “outcomes” (the intermediate term results necessary to achieve the impacts) and “outputs” (short-term results necessary to achieve the stated outcomes). The RBM frameworks used to describe results and management programme implementation are discussed in more detail in Chapter 3 on how COL applies the RBM model.

At various points in the handbook exercises are suggested which the reader is urged to complete. Understanding the concepts of a results hierarchy and performance measures is the easy part of implementing results-based monitoring and evaluation. Writing them is more difficult! It takes practice to develop statements of results and performance indicators that are succinct, that have a logical cause-and-effect relationship and that provide direction about the type of monitoring data that needs to be collected. The suggested exercises will help the reader to develop these skills.

Many organisations have developed handbooks to guide RBM and M&E applications in their particular organisations. Several of these have been reviewed during the development of this handbook and, as referenced, selected materials have been included and illustrations adapted. Readers are encouraged to review these references in their entirety as collectively they provide a rich compendium of examples and experience.

And finally, in the spirit of continuous improvement, this handbook should be considered a work in progress. The expectation is that it will be continually improved in response to comments from users. So please participate by sending your comments to Professor Asha Kanwar, Vice President, Commonwealth of Learning (akanwar@col.org).

CHAPTER 1.

The Commonwealth of Learning

What is the Commonwealth of Learning?

The Commonwealth of Learning is an intergovernmental organisation created by Commonwealth Heads of Government with a mission to encourage the development and sharing of ODL knowledge, resources and technologies throughout the Commonwealth with a particular emphasis on developing countries.

The results-based management approach guides planning and implementation at all stages of the programme cycle.

COL's vision is *Learning for Development*. This vision guides its work with governments, institutions and non-governmental organisations throughout the Commonwealth in the application of ODL to improve the effectiveness and efficiency of learning systems to achieve development goals.

What does the Commonwealth of Learning do?

COL's mission is to "help governments and institutions to expand the scope, scale and quality of learning by using new approaches and technologies, especially those subsumed under the general term of open and distance learning (ODL)."¹

Under the theme of *Learning for Development*, the results set out in COL's 2009–2012 Three-Year Plan (see Appendix B) focus on two programme sectors: (i) Education; and (ii) Livelihoods and Health. Sector programmes each focus

on four specific initiatives which include three cross-cutting themes: ODL quality assurance, gender equity and use of technologies.

Each programme sector pursues its aims through five core strategies:

1. *Partnerships* — Fostering sustainable partnerships and networks in support of these aims.
2. *Models* — Refining and sharing models for applying teaching and learning technologies to development challenges.
3. *Policies* — Assisting countries and organisations to develop and implement policies that support technology-mediated learning.
4. *Capacity* — Facilitating training and organisational development to increase the overall ability of partners to deploy learning systems and technologies effectively.
5. *Materials* — Working with partners to co-create learning materials and make them widely available.

Commonwealth of Learning staff and partners

The COL professional staff are recruited from throughout the Commonwealth on the basis of their expertise in particular aspects of ODL. Staff members operate in teams that focus on achieving the results set out in each three-year plan. For example, as discussed earlier, in the 2009–2012 plan, long-term results focus on two sectors: (i) Education; and (ii) Livelihoods and Health. Within each sector staff take individual responsibility for one or more specific initiatives related to the results expected to be achieved over the course of the plan.

COL has always leveraged its modest resources through strategic partnerships. Initially these were with individuals and institutions. Today, a network of national partners and links with international bodies give COL a global reach that belies its modest size. While these partnerships are important in terms of augmenting programme inputs, they are also of critical importance in the delivery of COL's programmes since most are delivered in co-operation with

partner organisations such as educational institutions, national and state government ministries and non-governmental organisations.

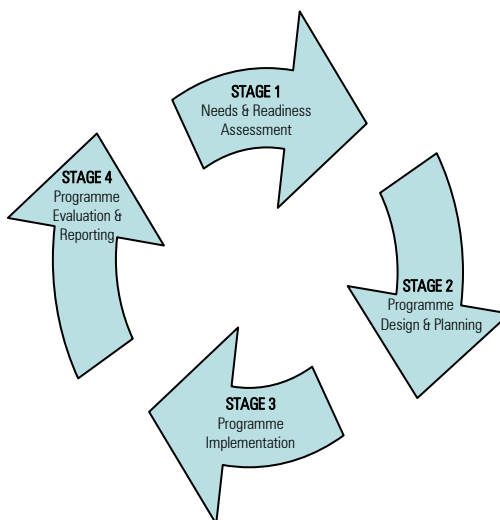
How does the Commonwealth of Learning plan its programmes?

COL plans its work in the context of three-year plans that are informed through extensive consultations with stakeholders, with environmental scanning and with feedback from an increasing emphasis on monitoring and evaluation of its initiatives.

The plan for the period 2006–2009 concluded on June 30, 2009, and the plan for 2009–2012, entitled *Learning for Development*, commenced on July 1, 2009.²

The essential feature of COL’s plans is an emphasis on defining its programme initiatives in terms of the results to be achieved. This RBM approach guides planning and implementation at all stages of the programme cycle. While the number of stages in this cycle varies depending on the organisation, COL has chosen to condense action to four stages, as illustrated in Figure 1.

FIGURE 1. PROGRAMME DEVELOPMENT CYCLE



STAGE ONE. NEEDS AND READINESS ASSESSMENT

This phase of the programme development cycle defines the needs to be addressed, the desired results from a potential intervention and the readiness of partner organisations to successfully engage with COL to carry out the proposed programme. The information gleaned from the first stage of the planning cycle informs decisions about:

- potential long-term results to be achieved through a potential partnership;
- specific results that need to be achieved in order to realise the intended impact;
- capacity-building that may be required in order for the programme to be successful;
- assumptions, risks and limitations that may influence the achievement of the desired results.

COL captures this information using a logic model framework as illustrated in its 2009–2012 Three-Year Plan.³

STAGE TWO. PROGRAMME DESIGN AND PLANNING

The use of RBM is particularly helpful at the second stage because it helps planners develop a management plan for achieving the results specified in the logic model. The inherent assumptions and risks and the performance measures to be used to assess results and the necessary verification data are also developed during the programme design and planning stage. This information is set out in a logical framework (log frame) that also includes a description of the planned activities and required inputs (resources). The concepts of a logic model and log frame are discussed in detail in Chapter 3 of this handbook. COL uses the resulting documentation to manage the implementation of its programmes as well as to communicate its programme plans to its stakeholders and partners.

STAGE THREE. PROGRAMME IMPLEMENTATION

The log frame provides the tool for a results-based approach to managing the third stage: the implementation of programme initiatives using M&E processes

to document progress toward the achievement of results. The data generated are used to review and modify strategies as required to enhance the effectiveness and efficiency of implementation strategies.

STAGE FOUR. PROGRAMME EVALUATION AND REPORTING

The fourth stage of the programme development cycle involves an in-depth assessment of the progress made toward the achievement of longer term results. Evaluation and reporting may occur at the end of a project or at some strategic point in its implementation. Reports produced may be used to inform stakeholders on the achievement of intermediate and long-term results (anticipated or unanticipated), to identify lessons learned and thus contribute to programme monitoring or for programme advocacy and teaching.

At any given time COL staff are at some stage of this cycle as they plan programmes to implement various initiatives. For example, the Learning for Farmers initiative has gone through the full cycle, having begun during the 2003–2006 Three-Year Plan period. At the beginning it involved extensive Stage One exploration with the various partners to develop understanding, consensus and commitment to co-operate in pilot activities that then progressed through the subsequent stages — with the evaluation evidence leading to another round of the cycle and expansion to other jurisdictions. However, sometimes the result from Stage One may be a decision not to proceed or at least not to proceed until constraining issues are addressed.

CHAPTER 2.

How does monitoring and evaluation fit into the programme development cycle?

Monitoring and evaluation are an integral part of the programme development cycle and the use of RBM. The remainder of this handbook focuses on RBM and M&E beginning with definitions and then examining its integration into the COL programme planning cycle.

Monitoring is a continuous process that provides evidence-based reporting about programme progress.

What is monitoring and evaluation?

The following definitions of monitoring and evaluation from the Organisation for Economic Co-Operation and Development (OECD) and the Kellogg Foundation use different labels but essentially mean the same operationally.

The OECD definitions, prepared by Kusek et al. for the World Bank⁴ are defined in a handbook for development practitioners as follows:

Monitoring is a continuous function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds.

Evaluation is the systematic and objective assessment of an ongoing or completed project, program, or policy, including its

design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact, and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors.

The Kellogg Foundation⁵ uses a different set of labels to describe similar processes. Instead of “monitoring” and “evaluation,” Kellogg uses the terms “formative evaluation,” which provides feedback to help improve programmes, and “summative evaluation,” which provides proof as to whether or not the programme achieved its intended results. Clearly the Kellogg definitions are functionally similar to those used by OECD even though the labels used are somewhat different. Table 1 illustrates the parallels between the terms as well as the fact that monitoring and evaluation are separate but complementary processes:

TABLE 1. FUNCTIONS OF MONITORING AND EVALUATION

MONITORING (Formative Evaluation)	EVALUATION (Summative Evaluation)
Links activities and inputs (resources) to expected results.	Provides information about the achievement, or not, of intermediate and long-term results, programme efficiency and post-intervention sustainability.
Provides information about the current status of programme activities, use of resources and the achievement of short-term results.	Explores unintended results.
Generates information that enables staff to make adjustments during the implementation phase of the programme cycle.	Generates evidence about causality; in other words, why results were, or were not, achieved.
Provides data for reports to stakeholders about progress to date, reasons for changes to the original plan, etc. thus facilitating transparency.	Provides data for synthesising lessons learned about learning for development and particularly the use of ODL strategies.

How does monitoring and evaluation fit into the COL programme planning cycle?

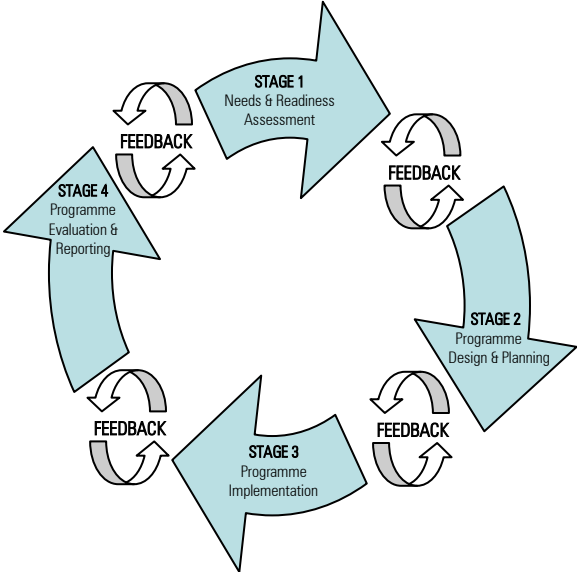
The Commonwealth of Learning has adopted definitions of M&E similar to those of the OECD and implements them in the following ways:

- **Monitoring** is a process that systematically collects data against specified indicators at each stage of the cycle to enable decisions about:
 - whether or not to proceed with a programme initiative;
 - the appropriateness of the results described in the initial log frame;
 - the need to revise the planned and ongoing activities and/or inputs;
 - whether or not to continue the implementation of a programme initiative.
- **Monitoring** is a continuous process that provides evidence-based reporting about programme progress and input utilisation to stakeholders.
- **Evaluation** is not ongoing. An evaluation study is an in-depth analysis, usually undertaken at an advanced point in the programme planning cycle, in order to answer some specific question(s) about the progress of a programme initiative such as:
 - the achievement of intermediate or long-term results;
 - the reasons why a programme initiative did or did not succeed;
 - to decide if a programme initiative should be continued.

The information gleaned from evaluation studies contributes to an organisation's overall monitoring strategy.

The incorporation of these M&E processes in the COL programme development cycle is illustrated in Figure 2.

FIGURE 2. MONITORING AND EVALUATION IN THE COMMONWEALTH OF LEARNING PROGRAMME DEVELOPMENT CYCLE



CHAPTER 3.

How is the results-based management model applied at the Commonwealth of Learning?

Results-based management evolved in response to a need for organisations involved in development to demonstrate greater accountability to stakeholders with respect to the use of resources and the achievement of results from

Crafting result statements is perhaps the most challenging aspect of using the results-based management model.

development interventions. The Canadian International Development Agency (CIDA) defines RBM as “a means to improve management effectiveness and accountability by involving key stakeholders in defining realistic expected results, assessing risk, monitoring progress toward the achievement of expected results, integrating lessons learned into management decisions and reporting on performance.”⁶

COL uses RBM as a core management tool for planning its programmes and assessing results as well as a framework for reporting to stakeholders.

How are results defined?

“Results” are changes that occur from some type of development intervention; for example, when COL works with an open school to develop open source curriculum materials the results are the materials produced. While the

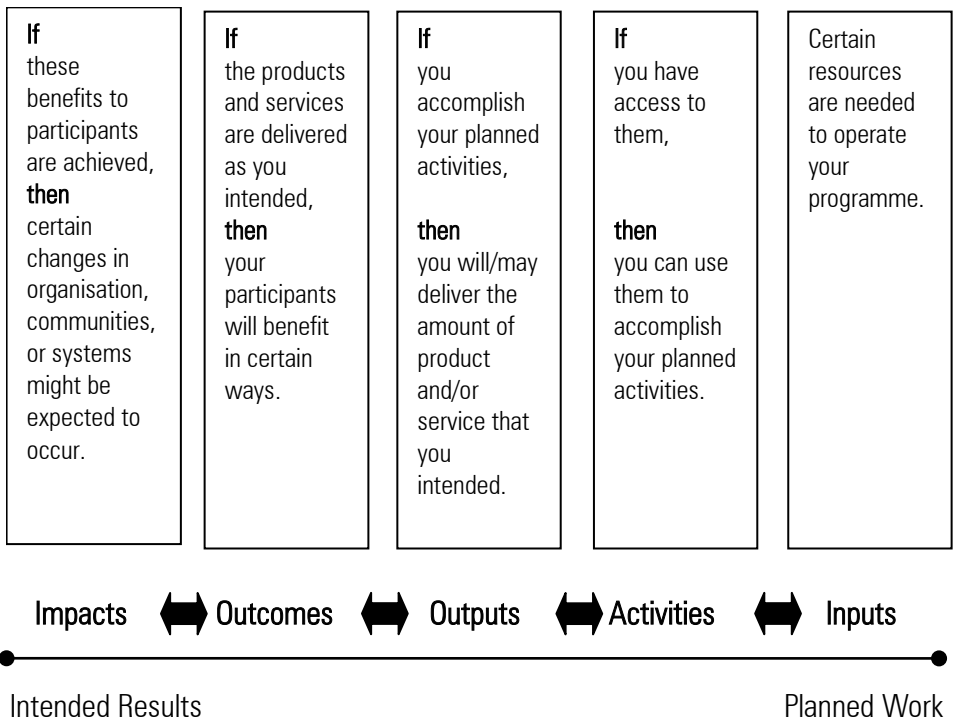
terminology for describing results varies across organisations, they are usually described at three levels.

1. *Long-term results* are expected to be achieved over the longer term of an intervention programme (e.g., five to seven years). In the literature, these are variously called “impacts,” “goals” or “long-term outcomes.” COL uses the term “impacts” to describe the long-term results it seeks to achieve. For example, in COL’s 2009–2012 Three-Year Plan the expected long-term impact for its work with the education sector states that: “Target countries improve the accessibility and quality of their formal education systems at all levels through the use of ODL tools and strategies.”
2. *Intermediate results* are expected in a shorter term (e.g., two to three years). They represent the changes that need to happen in order to achieve the desired long-term results. The universal label for these is “outcomes,” which are sometimes further differentiated as “shorter term outcomes” and “intermediate outcomes.” COL uses the term “outcomes” to describe the results expected for each of the programme initiatives it plans to focus on in its Three-Year Plan. For example, in the 2009–2012 plan, one of the programme initiatives in the education sector focuses on open schooling with the following expected outcome: “Countries plan and implement open schooling as a means of increasing access to learning opportunities at the secondary level.”
3. *Short-term results* (e.g., one year or less) are most commonly referred to as “outputs.” They are the measurable and tangible changes that result directly from programme activities and the expenditure of related resources. Outputs express changes that are expected to lead to the desired “outcomes.” Constant monitoring of the achievement of outputs provides feedback about the effectiveness of programme implementations and provides a basis for continuous programme improvement. COL reviews the achievement of its outputs on a quarterly basis and revises them if necessary.

As explained in the previous section, results are stated in a hierarchical manner that demonstrates cause and effect among short, intermediate and long-term results that, at COL, are termed outputs, outcomes and impacts. Crafting result statements in this way is perhaps the most challenging aspect of using the

RBM model. It helps to think of the relationship between result levels in terms of an “if/then” question. In other words, starting with the desired impact, ask the question: “If this is to be achieved, then what changes need to occur?” The answers will indicate the nature of the outcomes that need to be achieved. Similarly, asking what changes need to happen to enable achievement of the outcomes provides the basis for crafting outputs. “Outputs” are the results expected from programme activities and the use of the allocated inputs, which, in turn, provide the basis for developing a programme budget. The “if/then” process for determining the cause-and-effect relationship among levels of results, and their relationship to activities and inputs, can be expressed in terms of a set of if/then questions⁷ as portrayed in Figure 3.

FIGURE 3. USING THE IF/THEN QUESTION TO SHOW CAUSALITY



Logic models and logical frameworks: formats for describing results

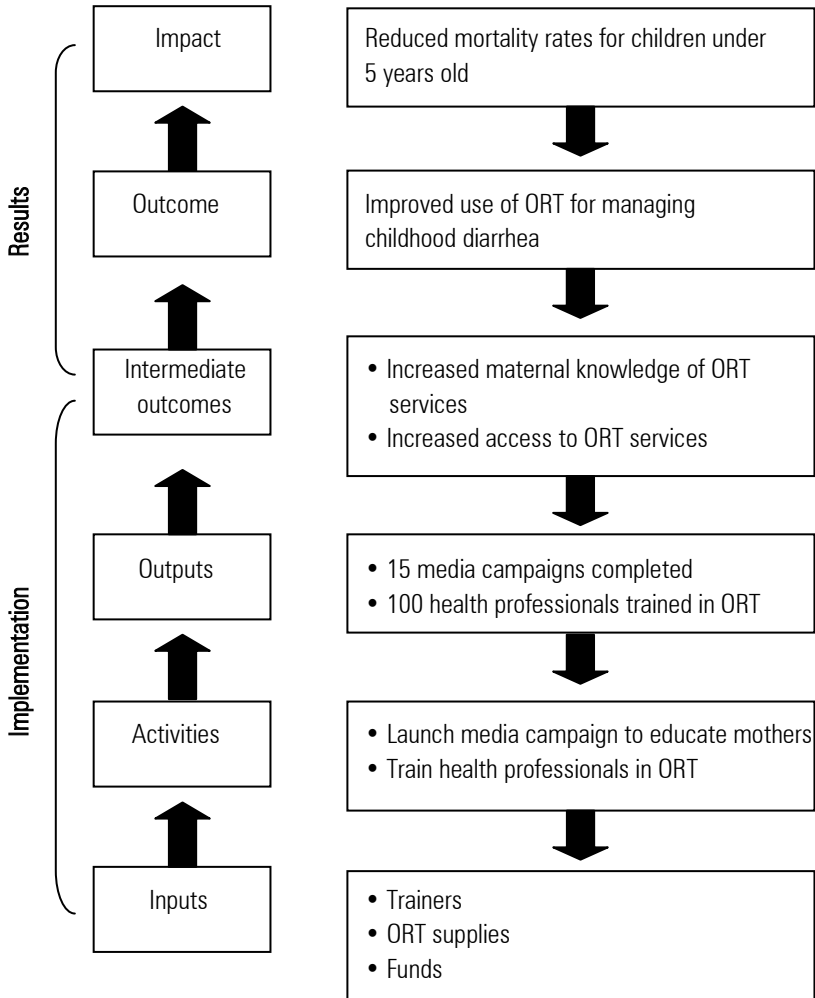
The terms “logic model” and “logical framework (log frame)” are sometimes used interchangeably; however, most organisations, including COL, make a conceptual distinction between the terms and apply them as complementary formats to describe the results to be achieved. This section explains the distinction between the two formats and how they are integrated in the implementation of the COL Three-Year Plans.

A “logic model” is a schematic illustration of the “if/then” relationships among:

- the levels of the intended results;
- the activities to be undertaken to achieve the results;
- the inputs (resources) available to support the activities.

A comprehensive description of a logic model, and the process for developing one, is provided in a UNICEF staff training document “What Is a Logic Model?”⁸ A logic model format can be used to provide different types and levels of information about an organisation’s programme. For example, the logic model shown in Figure 4⁹ is an example of how the format can be used to describe a hierarchy of results that focus on a specific programme. This example of a health policy issue shows how one outcome — oral rehydration therapy (ORT) — provides assessable results through its impact of reducing mortality rates in children under five years old. Note that in this logic model the outcome level has been subdivided into intermediate outcomes and a longer term outcome. This can be useful if the long-term impact result is very broad, such as the Millennium Development Goal (MDG) “to eradicate extreme poverty and hunger.” COL tends to avoid subdividing outcomes because it adds complexity and because its impact results are focused specifically on the ODL applications in learning for development.

FIGURE 4. A LOGIC MODEL FOR DESCRIBING PROGRAMME RESULTS

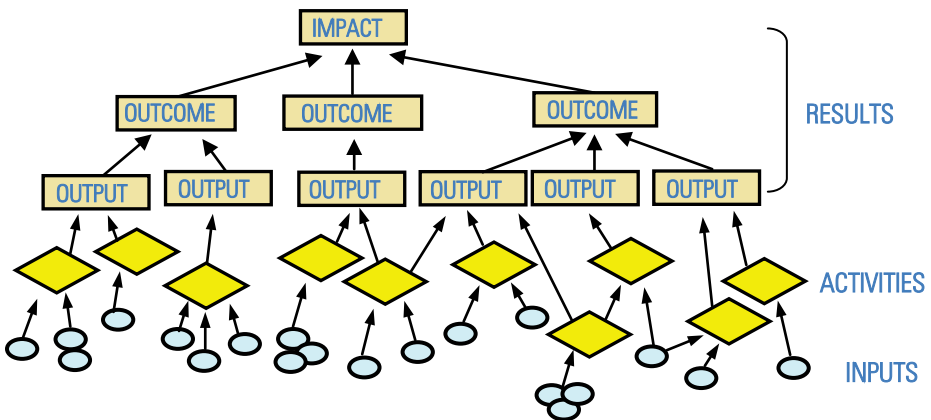


Another way to visualise a logic model is that illustrated in Figure 5.¹⁰ This framework demonstrates not only the cause-and-effect relationship among the elements of a logic model, but also that:

- several inputs may be necessary to carry out a given activity;
- several activities contribute to a single output;
- several outputs may be necessary to achieve an outcome;
- more than one outcome may be needed to achieve the desired impact or long-term result.

This logic model framework is often used to provide an overview of an organisation’s purposes and complex programme initiatives over a defined time period. Obviously, the longer the timeframe the more general will be the description of inputs, activities and outputs since they are more likely to change as programmes are implemented and monitored.

FIGURE 5: A COMPLEX PROGRAMME LOGIC MODEL



Application of the logic model at COL

Organisations that have comprehensive programmes that focus on more than one impact and multiple outcomes over a multiyear timeframe sometimes use an abbreviated logic model format to describe longer term results and related performance indicators. In such cases the more specific parts (e.g., outputs, activities and inputs) of the logic model are typically developed on an annual basis and they are revised as appropriate on the basis of monitoring feedback. The COL Three Year Plan for 2009–2012 is an example of a logic model used in this way. It sets out the results to be achieved at the impact and outcome levels along with the outcome indicators as shown in Appendix B. The context and assumptions that led to the development of the logic model are described in the accompanying narrative.

EXERCISE 1. CRAFTING RESULT STATEMENTS

Using the logic model framework in Figure 5, work with a colleague to select an impact-level result that is, or could be, relevant in your organisation. Choose something that would likely take several years to achieve. Discussing together, go through the if/then process described earlier and complete a logic model that describes the desired results at the impact, outcomes and outputs levels. Then get a few other colleagues to critique your work. Is the programme described in a way that shows causality? This experience will sharpen your skills on being clear about programme results and your ability to describe them in a way that shows causality. When you are finished, check the quality of your results statements against the following list of criteria, which is adapted from the W.K. Kellogg Foundation's "Logic Model Development Guide."¹¹

Quality checklist for describing results

1. Stakeholders have been involved in the process of defining and prioritising results, particularly at the impact and outcome levels.
2. The need for results related to specific gender-related issues has been considered.
3. All results are expressed using gender-sensitive language.
4. The specified impact is appropriate to the mission of the organisation and achievable within the scope of the programme.
5. Outcomes reflect reasonable steps for participants as they progress toward the achievement of longer term results.
6. Outcomes address desired changes in knowledge, skills and/or attitudes.
7. Outcomes are written as change statements (e.g., increase, reduce, enhance, etc.).
8. Outcomes are achievable given the available inputs and the timeframe of the programme.
9. Outcomes are measurable using a combination of quantitative and qualitative indicators.
10. Outputs describe events, products or services in terms of interventions (e.g., “100 representatives from 25 universities in East Africa will participate in open educational resources (OER) development workshops”).
11. Outputs describe target participants in quantitative terms (e.g., “300 women from ten communities in the State of X”).

EXERCISE 2. IDENTIFYING NECESSARY ACTIVITIES

Working with your colleague, complete the logic model by identifying the activities and inputs required to achieve the outputs you have described. Assess them against the criteria listed below. What are the assumptions involved that, if not met, could hamper the achievement of the outputs? What steps could you take to mitigate these risks?

Activities criteria checklist

1. Have you identified all the major activities needed to implement the programme?
2. Are these activities related to specific outputs?
3. Are the necessary resources needed to implement the activities identified?
4. Are the resources sufficient to implement the activities?



















Logical frameworks

A logical framework (log frame) is the complementary format COL uses to describe the results it intends to achieve. It complements the logic model in that it is a more specific management tool that provides:

- a general overview of results expected from an initiative or an activity;
- the basis for project implementation, including the development of annual work plans and budgets;
- a description of how the achievement of results will be monitored and evaluated by specifying the indicators to be used to assess the achievement of the results, the means for verifying the indicators, the assumptions being made and risks that may arise if the assumptions are not met.

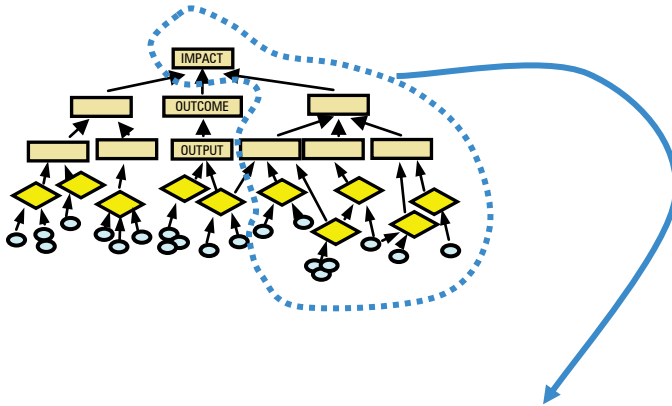
These elements, which are the critical ingredients in the development of monitoring and evaluation plans, are the focus of the following section of this handbook. A simple generic log frame format is illustrated in Figure 6.

FIGURE 6. A GENERIC LOG FRAME FORMAT

GENERIC LOG FRAME			
Results	Indicators	Means of Verification	Assumptions and Risks
Impact: The higher order results to be achieved by the programme			
Outcome: The expected result(s) from a programme initiative			
Outputs: The results expected from implementation of activities	  		
Activities: Main activities to be undertaken to achieve the outputs	    		
Inputs:	       	Resources allocated to support the implementation of activities (e.g., financial, personnel, technical infrastructure, previously achieved outputs, etc.)	

As described in the UNICEF document, “Result Frameworks, Programme Logic Models, Logframes: Different Tools for Different Applications,”¹² a log frame is used to plan and manage the process of achieving each of the outcomes stated in the logic model. This concept is illustrated in Figure 7, which shows how a complex programme logic model can be integrated with a generic log frame format to guide the implementation and assessment of a set of interventions related to a specific outcome.

FIGURE 7. INTEGRATION OF A LOGIC MODEL AND A LOG FRAME



GENERIC LOG FRAME			
Results	Indicators	Means of Verification	Assumptions and Risks
Impact: The higher order results to be achieved by the programme	▭		
Outcome: The expected result(s) from a programme initiative	▭		
Outputs: The results expected from implementation of activities	▭ ▭ ▭		
Activities: Main activities to be undertaken to achieve the outputs	◇ ◇ ◇ ◇ ◇		
Inputs:	○ ○ ○ ○ ○ ○ ○ ○	Resources allocated to support the implementation of activities (e.g., financial, personnel, technical infrastructure, previously achieved outputs, etc.)	

While the elements of a generic log frame remain constant, the framework can be used for a variety of purposes and it can be applied at various levels of the logic model, as shown in the following example:

- At its most general level of application, the log frame can be used to show how a particular outcome that is part of a larger programme (one that may have several outcomes) will be implemented and assessed over a given period of time, such as over the three years of a Three-Year Plan. The challenge of developing a useful log frame matrix at this level is to make it specific and clear, but not too long, since the purpose is to provide an overview of how a particular outcome will be achieved over the duration of the programme initiative. The description of outputs and activities will obviously be at a more general level because of the extended timeframe and this description is likely to require some revision from year to year based on monitoring feedback.
- The log frame can also be used to focus on a shorter period of time such as the first year of a longer term plan. In this application, the log frame would focus specifically on the outputs to be achieved in Year One, the indicators to be used and the means of verification, the assumptions and risks, the activities to be undertaken and the required inputs. Used in this way, a log frame maintains the long-term focus of the programme (the impact and outcome) while recognising two important realities of programme planning and implementation:
 1. It enables log frames to be developed in ways that are appropriate to the stage a programme initiative is at in the programme development cycle (see Figure 1). For example, if an initiative is at the stage of needs and readiness assessment, the outputs, indicators, verification data, activities and inputs would be quite different than they would be if the initiative was planned and ready for implementation. Indeed, the outputs achieved at the stage of needs and readiness assessment become essential inputs at a subsequent stage in the programme planning process.
 2. As intervention activities occur, and monitoring data is accumulated, it is likely that modifications will need to be made to the activities, the outputs and the use of inputs as described in the logic model. In short, it recognises that the implementation of

programmes is dynamic, requiring that plans be amended in light of experience.

- At its most specific level of application, a log frame is often a useful tool to develop annual work plans for implementing each of the planned activities. Log frames at this level will include the same elements; however, the focus is on the specific actions to be taken to successfully implement the activity in order to achieve the related outputs.

COL staff use log frames for two of these purposes as illustrated in Figures 8 and 9. The generic initiative level log frame shown in Figure 8 is focused on the initiative outcome and includes the performance indicators for the outcome, how they will be verified, the annual outputs to be achieved, the types of activities to be carried out, plus other data relating to budget inputs, geographical focus, etc. Used this way, Figure 8 is an example of how the first two of the above log frame applications can be combined to suit the specific needs of an organisation.

An example of the third type of application is shown in Figure 9. In this example the focus is on a particular activity and the specific actions that will be implemented to achieve the outputs to be focused on in the first year of the plan. Used at this level, the log frame becomes the basis for formulating annual work plans that include M&E. A separate log frame is developed for each activity that will be implemented during the year.

FIGURE 8. COL INITIATIVE LOG FRAME FORMAT

Sector: _____

Sector Impact: _____

Initiative: _____

Staff Responsible: _____

Activities (up to maximum five activities)	Outputs Resulting from Activities in 2009–2010	Initiative Outcome(s) as stated in the 2009–2012 Logic Model
Baseline Information: (Note: May be left empty)	Risks and Assumptions:	Performance Indicators
Countries/Regions <ul style="list-style-type: none"> • Region(s) • Countries 	Core Strategies <ul style="list-style-type: none"> <input type="checkbox"/> Policies <input type="checkbox"/> Capacity <input type="checkbox"/> Models <input type="checkbox"/> Materials <input type="checkbox"/> Partnerships 	Means of Verification (Note: Specify the monitoring data to be collected and the strategies for collecting it.)
	Annual Budget:	Three-Year Budget:
		Cross Cutting Themes Strategies <ul style="list-style-type: none"> <input type="checkbox"/> Gender <input type="checkbox"/> Quality <input type="checkbox"/> Technology

FIGURE 9. ANNUAL ACTIVITY LOG FRAME FORMAT

Initiative: _____

Activity: _____

Year: _____

Staff Responsible: _____

Actions:	2009–2010 Outputs:	Performance Indicators:
Core Strategies <ul style="list-style-type: none"> • Policies • Capacity • Models • Materials • Partnerships 	Risks and Assumptions:	Means of Verification: (Note: Specify the monitoring data to be collected and the strategies for collecting it.)
Cross Cutting Themes Strategies <ul style="list-style-type: none"> <input type="checkbox"/> Gender <input type="checkbox"/> Quality <input type="checkbox"/> Technology 	Budget:	
Baseline Information: (Note: May be left empty)	Countries/Regions: <ul style="list-style-type: none"> • Region(s) • Countries 	

EXERCISE 3. DEVELOPING A LOG FRAME

Select one of the outcomes described in the logic model you and your colleague developed in Exercise 2 and prepare a log frame for achieving it. Use the generic log frame matrix shown in Figure 6. Ask other colleagues to critique and provide feedback.

CHAPTER 4.

How does monitoring and evaluation fit into RBM?

It is important to underline the point that monitoring and evaluation are an integral aspect of results-based management and not just something that occurs after an intervention is made in order to find out if the results were achieved. Results-based management is based on results-based monitoring and evaluation.

Figure 10 illustrates how M&E processes integrate with a logic model. The figure shows that monitoring strategies should include both programme implementation as well as the progress being made in the achievement of results. Evaluation then builds on monitoring data to assess the achievement of outcomes and impacts.

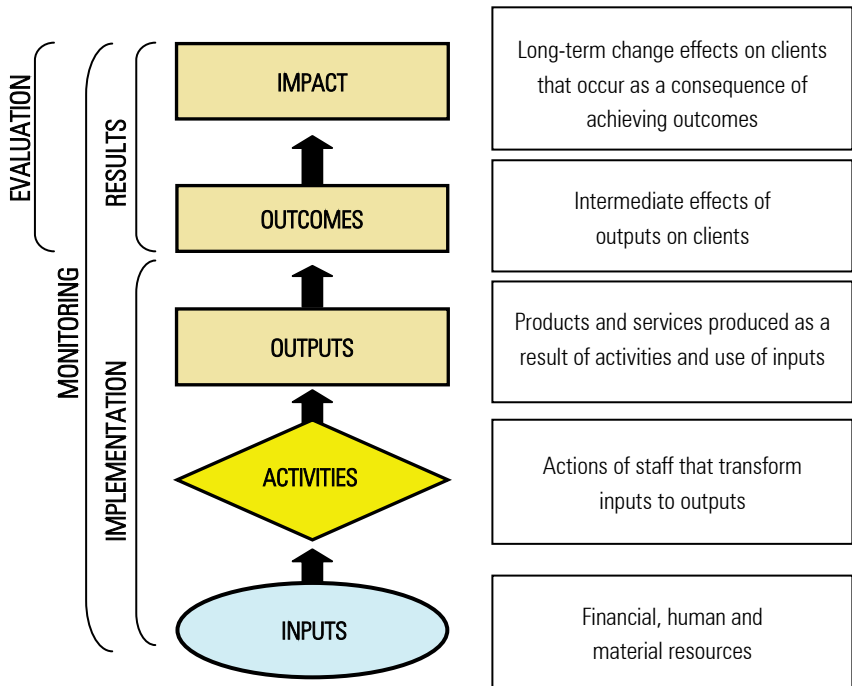
While it is useful at a conceptual level to see how the concept of M&E integrates with that of a logical model, it is really at the level of the log frame that M&E becomes operational.

The use of logic frameworks is sometimes criticised for being too linear and inflexible; however, a 2005 review¹³ of this approach to planning development programmes concluded that the problem is often not with the theory behind the model but rather with the way it is often implemented. In fact, the authors of the review found that many of the critics find the model conceptually helpful as a framework for clarifying programme aims as well defining “a place to start” in terms of implementation. The authors of the review concluded that:

Monitoring and evaluation systems enable an organisation to make decisions about the relevance, efficiency and effectiveness of its programmes.

We may start with a set of expected activities and results but, as events unfold, the project or programme needs to respond, change its theory and revise its expectations. The emphasis should be on setting up systems for monitoring the impacts of our work, changing directions accordingly and monitoring those changes in direction. We need to constantly think how what we do relates to the goal, but we also have to hold that theory loosely and be prepared to learn and change.

FIGURE 10. INTEGRATION OF MONITORING AND EVALUATION WITH RESULTS-BASED MANAGEMENT LOGIC MODEL



However, learning and changing requires that feedback gained through M&E systems enables an organisation to make decisions about the relevance, efficiency and effectiveness of its use of inputs, the implementation of activities and its progress toward the achievement of outputs and even outcomes. The log frame is therefore a precursor to the development of M&E systems in that the log frame defines the performance indicators to be used to assess the achievement of results and the data required to verify them. These previously discussed elements of the generic log frame are elaborated on in Table 2.

The remainder of this section focuses on the tasks and challenges of developing these aspects of a log frame.

Developing Performance Indicators

Monitoring and evaluation processes focus on two basic performance-related questions: Is the programme initiative being implemented effectively? Are the intended results being achieved? Neither of these questions can be addressed unless we have defined what success would look like. This requires the development of indicators to measure or assess performance against the background of desired results. These are usually referred to as “performance indicators,” which Kusek et al. in the *World Bank Handbook on Results-Based M&E*¹⁵ define as “the quantitative or qualitative variables that provide a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of an organization against the stated outcome.”

Ideally, indicators should be developed for all levels of results in order to monitor progress with respect to inputs, activities, outputs, outcomes and impacts based on the argument that progress needs to be monitored across an organisation in order to have a comprehensive feedback system. However, decisions about the scope of a M&E plan need to consider the priorities and capacity of the organisation to implement it. In reality the focus is typically at the outputs and outcomes levels because it is more difficult for an organisation to attribute the achievement of long-term results (impacts) solely to its own interventions.

This will be considered further in the section on developing M&E plans.

TABLE 2. RESULTS BASED MONITORING AND EVALUATION LOG FRAME¹⁴

Narrative Summary of Programme Results	Objectively Verifiable Performance Indicators	Means of Verification	Risks and Assumptions
<p><i>Impact</i> — The results expected to be achieved over the longer term of an intervention programme.</p>	Measures (direct or indirect) to show the contribution of the programme toward achievement of the result.	Sources of information and methods used to show achievement of the impact level result.	Important events, conditions or decisions beyond the project's control necessary for maintaining the progress toward the goal.
<p><i>Outcomes</i> — The changes expected from the various programme initiatives that are expected to contribute to the achievement of the desired impact results.</p>	Measures (direct or indirect) to show what progress is being made toward reaching the objectives.	Sources of information and methods used to show progress against outcomes.	Important events, conditions or decisions beyond the project's control, which are necessary if achieving the objectives is going to contribute toward the overall goal.
<p><i>Outputs</i> — The measurable and tangible changes that result directly from programme activities and the expenditure of related resources that are expected to lead to the desired outcomes.</p>	Measures (direct or indirect) to show if project outputs are being delivered.	Sources of information and methods used to show delivery of outputs.	Important events, conditions or decisions beyond the project's control, which are necessary if producing the outputs is going to help achieve the outcomes.
<p><i>Activities</i> — Actions taken or work performed through which inputs, such as funds, technical assistance and other types of resources are mobilised to produce specific outputs.</p>	Measures (direct or indirect) to show if project outputs are being delivered.	Sources of information and methods used to show that activities have been completed.	Important events, conditions or decisions beyond the project's control, which are necessary if completing activities will produce the required outputs.
<p><i>Inputs</i> — Resources — type and level of resources needed for the project. Finance — overall budget. Time — Planned start and end dates.</p>			

What indicators are needed?

The question about necessary indicators is answered by asking some further questions, as follows:

- What parts of the log frame are most important to have feedback about? Indicators should be developed to meet specific needs about the result being assessed. New indicators may be required and others dropped as feedback is accumulated during the monitoring process.
- What aspects of the log frame will your various stakeholders (management, board members, partners, etc.) expect to receive reports on?
- How will the monitoring data be used if you collect it? This question must be addressed in a M&E plan.
- Does the organisation have the capacity and resources available to collect data relevant to this indicator if it is selected? This is an extremely important consideration as every indicator has cost and work implications.

Criteria for performance indicators

Performance indicators should be “SMART,” which is an initialism for the set of criteria that indicators need to satisfy in order to be of optimal use as follows:

- *Specific* — the change that is the subject of the indicator must be specific, unambiguous and measurable leaving minimal room for misinterpretation.
- *Measurable* — it should be technically and financially possible, and within the power and scope of your operation, to capture the data.
- *Adequate* — it should provide sufficient evidence to be a valuable guide to the performance being monitored.
- *Relevant* — it should be central to the performance result that you want to monitor.
- *Timely* — it should be possible to make good use of the indicator results in planning and other management processes.

Performance indicators should also be “APT,” as follows:

- *Attributable* — changes in the indicator should be substantially attributable to your interventions.

- *Proportionate* — the effort and expense required to capture the data should be in proportion to the value obtained from it.
- *Transparent* — what the indicator measures should be clear to stakeholders without elaborate explanation.

Qualitative or quantitative?

As a general rule the more specific the result statement the easier it is to develop valid quantitative indicators. Stated another way, it is usually easier, and more practical, to develop quantitative indicators for outputs than for outcome and impact level results because quantitative indicators for intermediate and long-term results require a valid set of baseline data against which to measure change — and this is often beyond the capacity of organisations because of cost or data collection difficulties. This is not to say that one should ignore the use of quantitative indicators to measure outcomes and impacts, but rather to make the point that qualitative measures must also be considered.

That said, qualitative indicators should not be viewed as second best. They are often the best way to gain insights into a wide range of variables such as changes in institutional processes, attitudes, beliefs, motives and behaviours of individuals. Data collection for qualitative indicators typically involves the use of questionnaires that are administered through face-to-face interviewing, online responses, focus groups, etc. The downside of this is the amount of time needed to collect and analyse the data. And, because they usually involve subjective judgements, qualitative indicators are more difficult to verify.

EXERCISE 4. ESTABLISHING PERFORMANCE INDICATORS

Using the log frame developed in Exercise 3, review and revise the performance indicators in light of the foregoing discussion. Remember that the purpose of performance indicators is to allow you to monitor how well your desired results are being achieved. Discuss them with colleagues and get as much feedback as possible. Consider if they need to be reformulated in light of the feedback.

CHAPTER 5.

Collecting data for monitoring performance indicators

The creation of a log frame that defines programme results, along with the indicators to be used as measures of achievement, provides a structure for considering the data needed to verify that the

performance indicators have been met. And as this is done, it may cause some rethinking about the nature of the performance indicators that have been selected. Remember that the phases of the programme development cycle are interactive in that feedback from one phase may give cause to rethink and revise earlier decisions about desired results — particularly at the level of outputs. And when one starts to consider the data needed for the performance indicators that have been developed, it may result in having to reformulate some of them in light of the data sources available and the cost of collection.

The other point to make is that the collection of data for M&E is essentially a process of conducting social science research. This is a field of study in itself. What follows is a brief description of some basic concepts that will enable you to design and conduct data collection processes to enable effective monitoring of your programmes. If you have a colleague who has expertise in areas such as sampling, questionnaire design, interviewer training, etc. it may be useful to ask for advice. For those interested in broadening their expertise the online Web Centre for Social Research Methods¹⁶ is highly recommended.

A monitoring and evaluation process is only as good as the survey questions used.

Data sources and collection strategies

The following list is indicative of data sources and collection strategies commonly used for monitoring purposes:

- organisation budget and operational systems data (but remember: garbage in/garbage out);
- programme participant headcounts and demographics;
- Web use statistics and service subscriber data;
- surveys that use questionnaires, interviews and group discussions;
- appreciative inquiry, as used in the context of programme monitoring and evaluation, is a process that engages as many of the stakeholders involved in a given programme or project as possible in conversations about examples where they achieved or exceeded standards or expectations, the criteria that enabled that success, how the project or organisation is doing against those criteria and what changes could be made to improve performance. These stories, based on stakeholders' positive experiences, are then used to develop shared visions about desired results and improvement of programme implementation processes. Appreciation inquiry can be used both as a monitoring tool for purposes of formative evaluation as well as data gathering for summative evaluation.
- direct observation through site visits;
- self, peer and partnership assessment of programme progress and change;
- evaluation studies, including independent studies that investigate progress toward the achievement of longer term results or the effectiveness (or ineffectiveness) of the strategies being employed.

Another perspective on data sources and collection strategies is provided in Figure 11.

FIGURE 11: DATA SOURCES AND TECHNIQUES

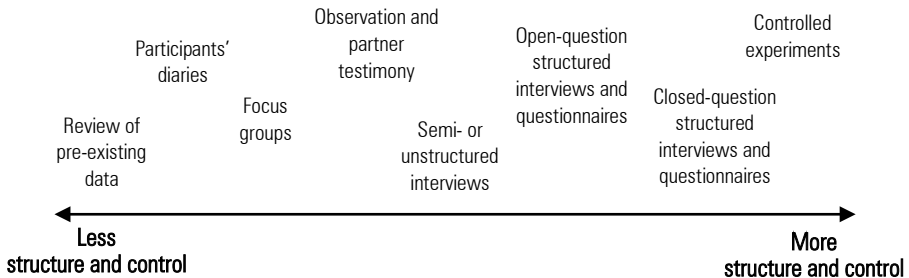


Figure 11 illustrates the variance among various data collection strategies in terms of the amount of control the researcher has over the process. For example, in a review of existing data, the researcher has no control over the collection process whereas there is complete control in an experimental design. The use of existing data can also be described as the use of secondary sources whereas the collection strategies at the opposite end of the continuum involve the use of primary sources (i.e., the target clientele of the programme).

Sampling

Sometimes it is not possible to collect data from everyone who participated in a programme. In such cases researchers often use some form of sampling¹⁷ to allow them to learn about the views of a large group of people by researching a small number of them. However, it is critical that the ones surveyed have the same characteristics as the total population; in other words, ensure that they are representative.

Different approaches to sampling can be used depending on the circumstances:

- *Random* — simple or structured to ensure various subgroups in a population are accurately represented. This is sometimes called “probability sampling.” The assumption of randomness is essential if one is to use inferential statistics.
- *Purposive* — to determine characteristics of a specific group (e.g., women or young men 18 to 25 years of age, etc.).
- *Snowballing or referral* — in this form of sampling the researcher asks respondents to provide referrals to other possible respondents.
- *Convenience* — a sampling process that chooses individuals who are easiest to reach (e.g., visitors to Web site). This is a form of non-probability sampling that is sometimes called “accidental.” It is not random and therefore is considered biased because it does not represent the entire population.
- *Quota* — in quota sampling the selection of the sample is made by the interviewer who has been given quotas to fill from specified sub-groups of the population. For example, an interviewer may be told to select and interview 50 male farmers between the age of 30 and 50.

Validity and reliability

Two related, but different, concepts are important to understand when collecting data. Taken together, reliability and validity address issues about the quality of the data and appropriateness of the methods used to collect it.

More specifically, validity addresses whether your research explains or measures what you said you would be measuring or explaining. It, therefore, deals with the appropriateness of the method used to answer the research question.

Reliability, on the other hand, addresses how accurately and consistently your research methods and data collection techniques are in producing data. For example, does the data collection instrument measure the same thing in a pre- and post-test situation? Or does the same interview schedule measure the same thing when administered by two different interviewers?

While statistical procedures can be used to assess the validity and reliability of data, it is best to ensure that there is no erosion at the outset of a data collection process. Sources of erosion can stem from one or more of the following:

- Small sample size can increase error rates.
- Sample selection may have been poor in that not everyone in the population had an equal chance of being selected into the sample.
- Response rate to questionnaires may have been poor.
- Interviewers may have interpreted questions differently.
- Language or translation errors may have occurred.
- Respondents may have had an overly negative or positive reaction to the interviewer.
- Questions may have been designed poorly.
- Interviewer fatigue may have led to inconsistencies from one interview to another.

Types of data¹⁸

Monitoring and evaluation data are collected in order to measure change toward the achievement of programme results. Analysis and interpretation of the data requires the use of statistics — either descriptive or inferential. Descriptive statistics can be used with most types of data and sampling procedures to

describe the basic features of variables. It uses percentages, frequency distributions, central tendencies (mean, median, mode), etc. Inferential statistics can be used to infer from a sample to the general population from which it was drawn. It can only be done when a sample meets the test of randomness and when the measuring data are continuous. Therefore, it is important to know about data types in order to choose appropriate statistics for analysis and description. The general categories of data are as follows:

- Nominal measurement uses numbers only for the purpose of categorising or to provide a unique name to an attribute (e.g., classification of farms into categories according to the type of crop grown). Inferential statistics cannot be used with these data and the only central tendency that can be used is the mode.
- Ordinal measurement uses numbers to rank order responses to a variable thus allowing comparisons of greater or less in addition to equality and inequality (e.g., “on a scale of 5, with 5 being excellent and 1 being poor, how would you rate xxx”). However, the numbers only constitute the rankings of responses. They are not on a continuous scale, hence the only useable central tendencies are the mode and median.
- Interval measurement assigns numbers to all the same features as ordinal measurements, with the added feature that the differences between them have meaning because they represent equal intervals. Examples include calendar dates and temperature scales. Central tendency measures with these data can be represented by the mode and median as well as by the arithmetic mean. Statistical dispersion can be measured in most of the usual ways.
- Ratio measurement uses numbers to describe a scale that always has an absolute zero. Examples of such scales include age, length of residence in a given place, number of organisations belonged to, number of workshops attended, etc. All statistical measures can be used with these data.

No one type of measurement data is “best.” Decisions about the type of data to be collected should be determined by the nature of the performance indicator and by practicalities. The importance of understanding the differences between data types is important only in terms of knowing what kinds of analysis methodologies are appropriate.

EXERCISE 5. BUILDING A DATA COLLECTION PLAN

Using the log frame that you have developed up to this point, draft a plan for the collection of data that will enable you to verify the performance indicators. Your plan should include the following:

- data sources to be used;
- collection strategies;
- sampling strategy;
- risks regarding validity and reliability — and what can be done to mitigate them;
- types of analysis to be used to interpret the data.

Data collection tools

Most primary data collection for M&E involves the use of surveys in one form or another. Whether a survey will involve the collection of quantitative or qualitative data, or both, will depend on the nature of the performance indicator being measured. Generally, quantitative surveys are used to determine differences within a group pertaining to attitudes, perceptions, behaviours, knowledge about a topic, etc. Quantitative surveys are useful when collecting data from the whole population or from a statistically valid random sample of that population. However, quantitative surveys do have limited ability to probe further on the answers, and people who are willing to respond to qualitative surveys may share characteristics that don't apply to the audience as a whole, which can create a bias in the study.

In comparison, qualitative surveys include any information that is not numerical in nature. They are an excellent means for gathering in-depth information about the thoughts and feelings of a population and therefore provide insights on the attitudes, beliefs, motives and behaviours of people. Interviews, site visits, focus groups and appreciative inquiry processes can explore a topic in depth, allowing investigators to probe the roots of opinions and the underlying dynamics of situations.

The tools typically used in conducting quantitative and qualitative surveys are summarised in Figures 12 and 13.

FIGURE 12. QUANTITATIVE SURVEY METHODS

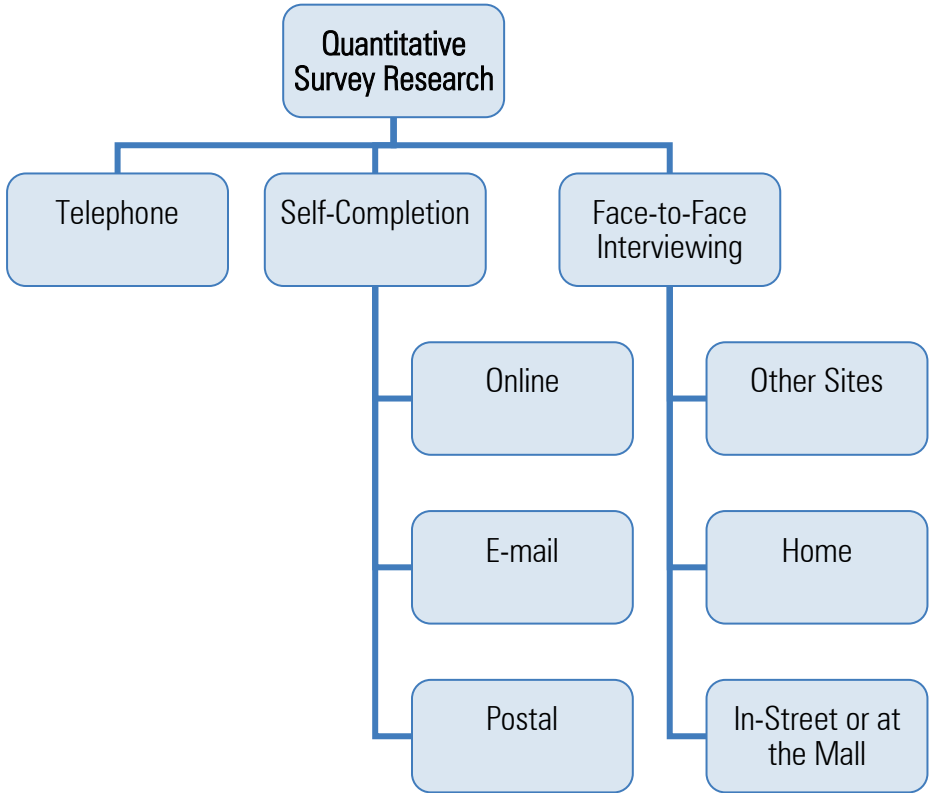
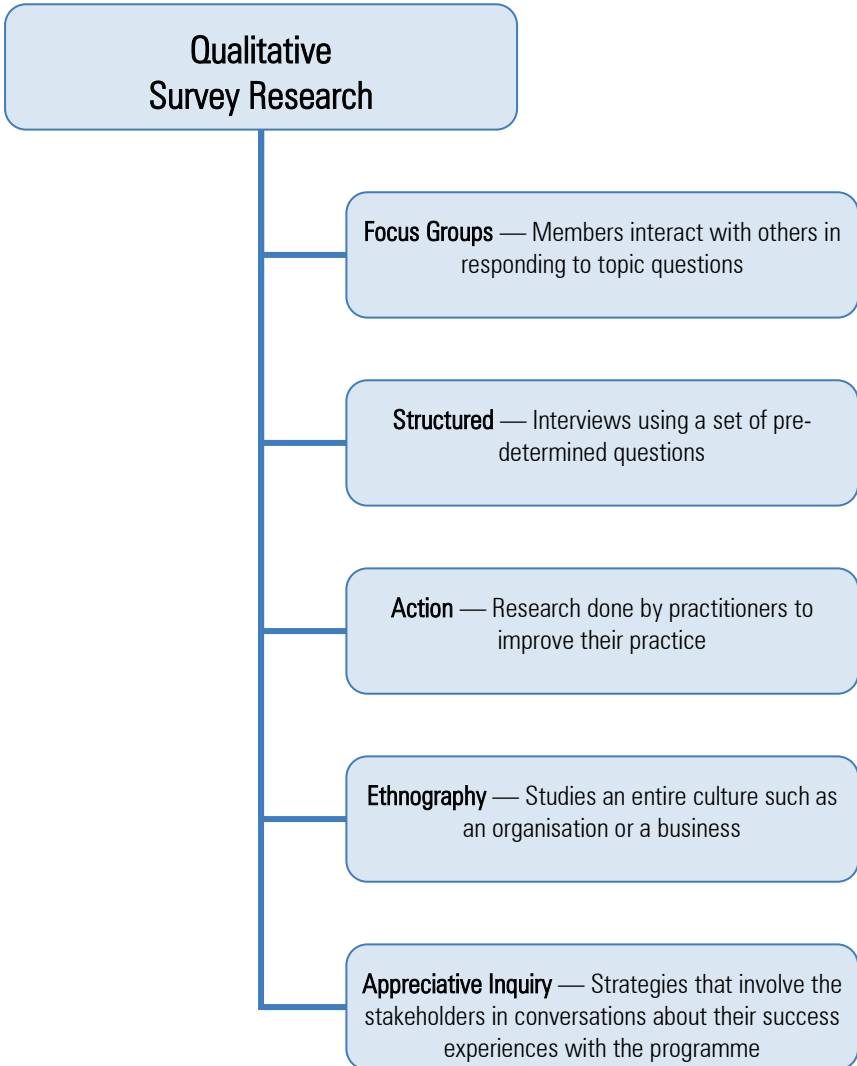


FIGURE 13. QUALITATIVE SURVEY METHODS



The differences between quantitative and qualitative surveys are outlined in Table 3.

TABLE 3.
DIFFERENCES BETWEEN QUALITATIVE AND QUANTITATIVE RESEARCH METHODS¹⁹

Qualitative Methods	Quantitative Methods
Focus groups, in-depth interviews and reviews	Surveys
Primarily an inductive process used to formulate theory	Primarily a deductive process used to test pre-specified concepts, constructs and hypotheses that make up a theory
More subjective: describes a problem or condition from the point of view of those experiencing it	More objective: provides observed effects (interpreted by researchers) of a programme or problem or condition
Text-based	Number-based
More in-depth information on a few cases	Less in-depth but more information across a large number of cases
Unstructured or semi-structured response options	Fixed response options
No statistical tests	Statistical tests are used for analysis
Can be valid and reliable: largely depends on skill and rigor of the researcher	Can be valid and reliable: largely depends on the measurement device or instrument used
Time expenditure lighter on the planning end and heavier during the analysis phase	Time expenditure heavier on the planning phase and lighter on the analysis phase
Less generalisable	More generalisable

Another useful summary of quantitative and qualitative research methodology is provided in Appendix A, Patrick Spaven’s “A Very Potted Guide to Evaluation Research Techniques.”

Characteristics of a good survey question

Any M&E process is only as good as its weakest link — and the design of survey questions is often one of them. Well-designed survey questions are of critical importance to avoid eroding the validity and reliability of data.

The design of survey questions is a topic for study on its own and the reader is encouraged to practice and develop this skill. There is an abundance of online resources²⁰ to help.

The following list provides a summary of the main points to consider when constructing survey questions. Specifically, survey questions should be:

- central to the purpose of the survey;
- written simply in a conversational tone;
- relevant to the interviewee;
- unambiguous;
- focused only on one idea;
- real to the situation, not hypothetical;
- not leading;
- evenly balanced, mutually exclusive with clear descriptors if the question requires a scaled response;
- capable of being pre-tested.

EXERCISE 6. DESIGNING A SURVEY QUESTIONNAIRE

Design a survey questionnaire that you will use to collect the data as outlined in the data collection plan you developed in Exercise 5. Have a colleague critique it or, better yet, ask someone with more experience in questionnaire design to review it and give you feedback.

CHAPTER 6.

Evaluation studies

Monitoring is an ongoing process and, while it typically focuses on the conduct of activities and the achievement of outputs, it can be designed to gather feedback about the achievement of results at all levels. Evaluation studies can be considered as one aspect of an organisation's overall monitoring strategy in a mature M&E system. They are not ongoing but are "one-off studies" usually undertaken at an advanced stage in the programme planning cycle to answer some specific questions about the progress of a programme initiative. Evaluation studies are usually commissioned studies conducted by a contracted third party. They often constitute a significant component of an organisation's M&E budget so it is important to have an understanding of the design and management of evaluation projects.







The purpose, design and management of evaluation studies is discussed under the subheadings that follow, beginning with trends and concluding with tips for managing evaluation consultants.

The trend is toward a participatory model involving a partnership approach in which stakeholders and agency representatives actively engage in developing the evaluation process and all phases of its implementation.

Trends in evaluation

The practice of evaluation has changed over the years in terms of both purpose and methodology. Some of these shifts are indicated below:

From a Primary Focus on:  To a more Inclusive Focus on:

Projects		Programmes, policies, themes, institutions, countries
Evaluation for accountability		Evaluation for learning
Looking back		Looking back and forward; all formative
Reliance on external evaluations		Reliance on internal or collaborative monitoring and review
Evaluator as inspector		Evaluator as facilitator in participatory process
Outcomes defined by donors		Outcomes defined by participants

Types of evaluation studies

- **Ex-ante** — An appraisal of a pre-programme situation. Ex-ante evaluation²¹ is a process carried out to assess client needs and readiness to engage in a programme initiative. The information from such evaluation studies is typically used for the preparation of programme proposals or renewed actions.
- **Pilot** — Carried out to assess the feasibility of a wider application of a programme intervention, to test strategies, client readiness, availability of inputs, etc.
- **Formative** — A study conducted near the mid-point in the implementation of a programme initiative to assess effectiveness and efficiency and make recommendations for improvement. Such studies are usually done as part of the larger monitoring process in order to answer specific questions that have arisen.
- **Summative** — These studies are carried out at the completion of a programme intervention, or at some logical break point, to assess the

achievement of programme results, to draw lessons from the experience and to account to stakeholders.

- **Ex-post** — The focus of this type of study is on the achievement of the long-term impact of an intervention. It is done long after the programme has been completed.
- **Meta** — These studies usually do not involve the collection of primary data but rather draw together knowledge gained from several previous evaluations, publicly available articles and reports, available monitoring data, etc.

Types of evaluation questions

- **Descriptive: “what is”**
 - Who does the programme target?
 - What are the characteristics of the programme?
 - Where is the programme delivered?
 - How do the participants react to the programme?
 - How much did the programme cost?
- **Normative: “what is” compared with “what should be”**
 - Is the programme achieving its objectives?
 - Is the programme targeting the right people?
 - Is the programme relevant to your needs?
 - Is the programme gender sensitive?
- **Impact questions: “what difference does it make?”**
 - To what extent did the programme influence change in policy?
 - What impact has the programme had on the institution’s capacity?
 - Did the programme improve the participants’ awareness, knowledge, competencies or power?
 - What other changes has the programme brought about?

Sources of data for evaluation

- **Published and other secondary information** such as evaluation reports, journal articles, etc.
- **Monitoring data** already collected such as programme participation levels, collected workshop comments, etc.

- **Institutional data** regarding finances and operations.
- **“Key informant” interviews** — staff, partners, clients.
- **Participant** interviews, questionnaires, groups discussions.
- **Data** gathered through *real-time observation techniques* by people participating in the programme.
- **External environment or comparator data** involving comparisons with similar programmes elsewhere by other organisations. This is sometimes referred to as “benchmarking”.

Participatory evaluation

A trend in the field of evaluation is toward a participatory model involving a partnership approach in which stakeholders and agency representatives actively engage in developing the evaluation process and all phases of its implementation. Like most evaluation strategies, there are advantages and disadvantages; however, the partnership approach is gaining favour with development practitioners.

Appreciative inquiry is an example of this approach to evaluation which, in general terms, is one of a growing number of strategies that focus on creating dialogue among programme stakeholders.

Benefits of Appreciative Inquiry:

- increased credibility of results with partners;
- results are more likely to be used;
- increased buy-in, less resistance;
- increased sustainability;
- provides a tool for empowering the affected populations;
- allows more flexibility in terms of data collection methods.

Challenges of Appreciative Inquiry:

- time consuming;
- clarifying roles, responsibilities and processes;
- lack of skilled facilitation;
- low stakeholder capacity to participate;
- no pre-determined evaluation plan;
- may be seen as less objective.

Gender consideration factors in evaluation

Gender equity is of paramount importance in all aspects of development work and it is essential that M&E data collection methods avoid any form of gender bias in methodology or questionnaire design. The following considerations, while not an exhaustive list, will provide some guidance in the design and conduct of evaluation studies to avoid gender bias:

- Some surveys only collect information from the “head of the household” which often excludes women.
- Can women participate in public meetings or mixed focus groups in the given cultural context? If not, then other strategies need to be devised to collect data from women given their typically critical role in the adoption and diffusion of development interventions.
- Are timings for data collection gender sensitive in the sense that they respect the many other duties that women must give priority to?
- Are questions male-centred? For example, are respondents referred to in a gender-neutral manner?
- The evaluation design, including questionnaires, should be pre-tested with both men and women if they are both to be included in the data collection process.

Evaluation management issues

Evaluation studies need to be managed to ensure efficiency and effectiveness. The following points should be considered when designing a management plan:

- Allow flexibility of method. There is always a tension between the ideal methodology and that which is possible given contextual constraints. Sometimes different methods may be necessary to reach different segments of a population and situations can arise during data collection that require changes to the original plan.
- Clarity about management of field work is essential to ensure consistency in the implementation of the study to avoid role conflict among the people involved and to ensure effective communication.

- Ensure there is a single point of contact for information. Projects that have multiple “spokespeople” are likely to have inconsistencies in the messages that stakeholders receive and, more importantly, participants will be unsure about where to go to have questions answered or issues decided.
- Encourage collaboration in the design and conduct of the study. Participants will have greater understanding of, and commitment to, processes they have had a hand in planning.
- Allow adequate time for staff and partner consultation on the final report. While reports should not be written by committees, conclusions and recommendations are likely to have greater acceptance and support if those affected have had some input.

Hiring and managing evaluation consultants

The person responsible for ensuring that an evaluation study is conducted should not devolve that responsibility to a consultant. The following points provide a checklist of management tasks that are important to attend to when hiring a consultant to carry out an evaluation study:

- Provide background and reasons for the evaluation.
- Ensure the consultant has an understanding of the programme to be evaluated.
- Be clear about the scope and focus of the evaluation.
- State expectations about stakeholder involvement.
- Be clear about roles, responsibilities and accountabilities.
- Understand and approve the evaluation methodology and process.
- Identify existing data sources; for example, data acquired through monitoring.
- Establish clear deliverables and timelines.
- Establish evaluator qualifications for selection purposes.
- Develop estimates of time and costs (but do not disclose to candidates who are bidding for a consultancy).
- Establish requirements for proposals and the decision-making process.
- Prepare draft contract.

EXERCISE 7. WRITING CONSULTANT TERMS OF REFERENCE

Identify an evaluation study you would like to commission for a project you currently have underway. Using the hiring checklist above, develop a draft contract that would provide the required information for a consultant you would hire to conduct your evaluation project.

CHAPTER 7.

Implementing a results-based monitoring and evaluation system

At this point you have:

- thought through why monitoring and evaluation is important to your organisation and how the information gleaned will be used;
- identified the primary stakeholders;
- established the levels of results your monitoring plan will focus on;
- defined the performance indicators you will use to measure success;
- identified the type of data to be collected for those performance indicators and the strategies to be used in collecting it.

These are the critical steps in the process of building a results-based M&E system. What is needed now is a strategic plan that identifies how the process will unfold and where responsibilities lie. The adage that “everybody’s business is nobody’s business” holds true in spades when organisations try to implement M&E without a clear plan for doing so.

Table 4 outlines the questions²² that need to be addressed when developing a plan for making M&E operational in an organisation. Note that the plan format requires that the questions be answered for each performance indicator.

The adage that “everybody’s business is nobody’s business” holds true in spades when organisations try to implement monitoring and evaluation without a clear plan for doing so.

TABLE 4:
STRATEGIC PLAN FORMAT FOR IMPLEMENTING MONITORING AND EVALUATION

Performance Indicator	Data Sources	Data Collection Methods	Who Will Collect Data?	Frequency to Collect	Cost to Collect	Who Will Analyse Data?	Who Will Report the Data?	Who Will Use the Data?
1								
2								
3								
Etc.								

Embedding results-based monitoring and evaluation in an organisation

Systematic monitoring and evaluation is often viewed as an “add-on” to the programme planning process. It isn’t that we don’t make judgements about how well programmes are going, or how successful they were, it’s just that we usually don’t do that in a very systematic way. Making monitoring and evaluation an integral component of the core business processes of an organisation is therefore a constant challenge that is much influenced by the behaviours and policies within the organisation itself. Kusek et al.²³ have identified several factors that are particularly important:

1. Senior management and key stakeholders must be visibly consistent in their support for a results-based M&E system. It will not be used and sustained if support “from the top” is haphazard or episodic.
2. Roles and responsibilities for implementing the M&E system must be clear with formal organisational and political lines of authority established for ensuring they are carried out effectively. The lead responsibility for ensuring M&E at the level of programme implementation (i.e., ensuring that the log frame is carried out), rests with the staff person or persons responsible for implementing the initiative. Unlike a one-off evaluation study, it should not be assigned to a consultant — although such a study may well be commissioned by the staff person as part of the monitoring process.
3. The information produced by the M&E system must be, and be seen to be, trustworthy and credible.
4. No part of an organisation should be exempt from inclusion in the M&E system or from accountability to stakeholders.
5. Sustainable M&E systems must be supported by staff competencies in the form of sound technical skills in data collection and analysis. This requires an organisational commitment to ongoing M&E training.
6. Incentives need to be introduced to encourage use of performance information by staff on an ongoing basis. Staff awards and rewards for

RESULTS-BASED M&E AT COL

excellence in M&E should supplement staff performance systems that include the assessment of M&E competencies.

CHAPTER 8.

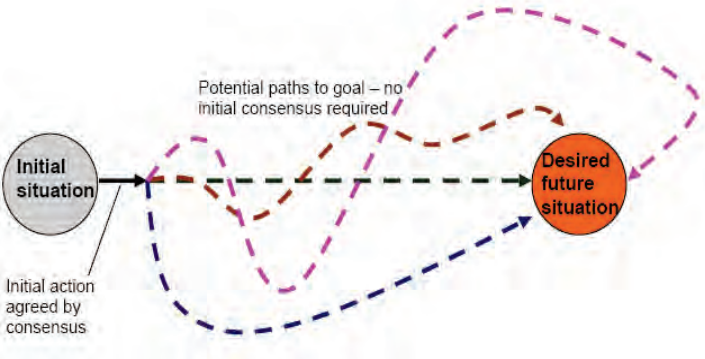
Final thoughts

- Planning and monitoring and evaluation are simply two sides of the same coin. They are inextricably related as indicated in the programme cycle diagram shown in Figure 1.
- The use of programme monitoring data causes all phases of the programme development cycle to be interactive. Staff responsible for implementing intervention initiatives need to use feedback to modify or change plans during implementation as is illustrated in Figure 14.
- Log frames have three important purposes:
 - They enable an organisation to manage for the achievement of results.
 - They provide the basis for developing M&E plans.
 - They provide a basis for communicating to stakeholders what an organisation does.
- There is no perfect design for a results-based M&E system. There are always trade-offs in terms of time, cost and depth of data collection and analysis. These need to be acknowledged and managed to mitigate their impact as much as possible.
- Implementing results-based M&E needs to be viewed as a process of continuous improvement. A year-end review can be a useful part of the process by addressing such questions as:
 - What went particularly well? Why?
 - What did not live up to expectations? Why?
 - What would you do differently?
 - Are you doing the right things?

We hope this handbook has been helpful in expanding your thinking about the two-sided coin of results-based management and results-based M&E. The Notes section that follows lists several excellent sources of additional information as well as descriptions of how other organisations are implementing M&E. Just

remember that there are no recipes, only concepts that constitute the core ingredients for a system that needs to be designed to suit the nature of your particular organisation.

FIGURE 14. THE BEST LAID PLANS



APPENDIX A.

A very potted guide to evaluation research techniques

Qualitative research

1. Qualitative research is concerned with understanding rather than measuring things. Its output is words and not numbers. It is good for testing ideas and discovering connections which you might not have thought of. As such it is often used as a precursor to quantitative research to help define the right questions to ask. It is also used alongside quantitative research to provide depth, fresh insights and an emotional dimension to the results. It can be used on its own to further explore a theme — such as stereotypical images of a country — already well researched quantitatively in the recent past.
2. Questionnaires designed primarily for quantitative responses can also contain open-ended questions to provide qualitative data. Qualitative research, however, usually depends on instruments specifically designed to record information qualitatively rather than quantitatively. Those you are most likely to use are discussion groups — often called “focus groups” — and in-depth interviews, although there may be situations where observational, “ethnographic” research is appropriate.
3. In discussion groups the participants — ideally between six and 10 in number — are brought together for a semi-structured discussion under the guidance of a moderator who will lead the group through a series of open-ended questions in what is known as a topic guide. The discussion is best held in a comfortable room which looks and feels like a familiar space. It typically lasts around 90 minutes.
4. Discussion groups are designed primarily to capture the consensus among the participants, although strongly held contrary minority views are

important as well. Minority positions tend to be overshadowed in the discussion and may be under-represented in the analysis, so discussion groups are not ideal for capturing the full range of opinions, attitudes, etc.

5. Because discussion groups are mainly about consensus, a given group should be as homogeneous as possible in age, educational background, ethnicity, mother tongue and any other significant factor.
6. In-depth interviews, which are usually conducted with individuals one at a time — or sometimes two at a time — give you most of the advantages of discussion groups but also the ability to get a handle on the range of opinions and beliefs held by a series of interviewees. Their main drawback is that they can be considerably more expensive if conducted in sufficient numbers to produce reliable conclusions about the range of views expressed. If discussion groups are impracticable for logistical, political or cultural, or for “seniority” reasons, then in-depth interviews may be the only option for qualitative research.
7. You should agree the topic guide with the evaluators in advance just as you would agree a questionnaire. The topic guide contains trigger questions, sometimes supplemented by images.
8. Ethnographic research consists mainly of detailed observation of people as they interact with each other and their environment in natural, rather than artificial, settings. Ethnographers often use video so they can do further analysis on what they have observed.

Quantitative research

9. Quantitative research produces results in numbers, even if the areas addressed are highly subjective. It collects information systematically from a sample of a defined target population and analyses it to provide a profile of those people. The normal way of collecting this information is by means of a questionnaire.

Methods of collecting data

10. Face-to-face interviewing is generally the best form of research. It produces good response rates and allows the interviewer to use prompt cards and explain questions if necessary. It is also the most expensive and takes time, especially if the target population is in several different parts of the country.
11. Telephone research is faster and can reach a more geographically dispersed audience. However, the interviewer cannot use prompt cards, and this can make pre-coded questions rather laborious. In some cultures, people are reluctant to be interviewed on the phone. In others, phone ownership is restricted; and although cellphones are widespread, there are special problems with conducting interviews through these devices, such as the unpredictability of the location.
12. Postal and self-completion research is cheaper than either of the personal contact forms. It can cover a large number of people at relatively low cost. But it tends to produce low response rates although these can be eased by paying postage and designing a short and simple questionnaire. Respondents are self-selecting. Typically only those who are really interested in the themes — whether pro or anti — will complete the questionnaire.
13. E-mail research — either with an attached questionnaire or a URL to a Web-based tool is also cheap and can be used internationally if necessary. But the same concerns about self-selection apply as with postal surveys, and of course it is restricted to people who have e-mail and whose addresses can be obtained.
14. Web-based questionnaires, such as those presented through pop-ups, are cheap, but suffer even more from self-selection. They are probably best used for customers' feedback on the Web site they are navigating at the time.
15. Forms of research that don't involve personal contact — like postal and e-mail questionnaires — are most suitable for groups who have a vested interest in contributing their views, such as people who are known to you.
16. Quantitative research usually uses a sample to represent the target group. The sample has to be carefully chosen. It is very important to avoid bias. This may come from a wide variety of sources, for example:
 - a poorly chosen sample;
 - a poor response rate;

- assumptions among the respondents about the organisation commissioning the research and its motives for doing so;
 - the way the questionnaire is structured and the questions worded;
 - interviewee fatigue. As a rule of thumb, 25 questions should be the maximum for a face-to-face interview, 20 for a telephone interview and 10 for a postal, e-mail or Web-based questionnaire (unless the interviewee has a vested interest in the survey).
17. Researchers have different ways of collecting information to overcome these sources of bias. It is worth discussing this with your research company prior to the survey.

Choosing and framing questions

18. A good question should:
- be central to the survey objectives (not just “nice to know”);
 - be unambiguous and easily understood by the respondent;
 - be relevant to them (a question about an obscure topic will produce random replies);
 - avoid leading the respondents into giving a particular answer;
 - be about a single concept, not try to combine two or more.
19. Questions can be framed in several ways. Constructing questions about objective data such as the respondents’ age, family size, gender or how frequently they use the Internet is relatively easy. You will need to decide how to divide up “interval” data like age (e.g., 15 to 19 years and 20 to 25 years of age) and frequency of use (e.g., more than three times a week, one to three times a week, less than once a week).
20. Questions are often about less concrete concepts such as perceptions and require subjective responses. These can be framed in a number of different ways.
21. One is to present a proposition — such as “the course has helped me to take on more responsibility at work” — and ask people to choose a point on a scale that reflects the extent to which they agree or disagree with it, for example:
- strongly agree;
 - tend to agree;
 - neither agree nor disagree;

- tend to disagree;
 - strongly disagree;
 - don't know/no opinion.
22. This is called a Likert scale and is usually evenly balanced either side of a neutral option. Rating scales can directly address the attitude you are researching, for example:
- perceived importance of something (very important, fairly important, etc.).
 - likelihood of doing something in the future (very likely, quite likely).
23. With some attitude scales, four points — without the neither/nor, sitting on the fence, option — are more appropriate. The precise wording of scale points is a matter of common sense, not science.
24. Another way of probing subjective areas such as attitudes, aspirations, needs, etc. is to elicit people's preferences and priorities. You can ask the interviewee to choose one or more things from a list, against a criterion such as:
- the most important benefit they have gained from the programme
 - their main reasons for using the Internet.
25. You may however prefer to ask open-ended unprompted, rather than defined choice, questions. There are three principal ways of handling questions like these. One is to leave the responses open-ended until the survey is complete. The long list of actual responses will then have to be summarised through classification. If cost is not a major factor, this is the best method because it imposes no preconceptions on people's responses. However it is expensive because the interviewer has to write down actual responses rather than ticking coded boxes. Also the post-survey classification takes time.
26. The cheaper alternative to this involves pre-classifying expected responses and then pre-coding them in the questionnaire. For example, you might decide in advance to classify all conceivable uses for the Internet in the following way:
- e-mail;
 - news and current affairs;
 - educational reference;
 - information and contacts for work;

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- consumer information and purchases;
 - chat;
 - other recreation, sport and culture;
 - other (please write in).
27. Having pre-classified the responses, you invite open-ended responses and rely on the interviewer to code the answers according to what they see as the best-fit category.
28. Pre-classification poses less of a problem if the attitude area has been well researched before in similar circumstances. If you adopt the same classification as a previous survey, you will also have the benefit of comparison. In some circumstances you may in any case want to restrict the responses (e.g., to force people to state their preferences among a list of services you are thinking of providing).
29. You have to decide how many choices to allow people in a single question. Single choices are easier to process, interpret and present, for example:
- What is the single most negative thing about the UK?
 - Which would be your first choice country for study abroad?

But as we all know, life is more often about shades of grey and compromises, so it is usually more realistic to give people more than one choice. These are known as multiple-response questions. You can either ask the interviewees to rank their choices or not.

Patrick Spaven

July 2006

APPENDIX B

Commonwealth of Learning Logic Model 2009-2012

Vision: Access to learning is the key to development

Mission: To help governments and institutions to expand the scope, scale and quality of learning by using new approaches and technologies, especially those subsumed under the general term of open and distance learning

Core Strategies: Partnerships, models, policies, capacity and materials

EDUCATION

INITIATIVES

Open Schooling
Teacher Education
Higher Education
Virtual University for Small States of the Commonwealth (VUSSC)

OUTCOMES

COUNTRIES plan and implement open schooling as a means of increasing access to learning opportunities at the secondary level.
MORE teacher education and training institutions use ODL methodologies to train and upgrade larger numbers of teachers.
HIGHER education institutions have policies, systems and staff competencies that support the use of ODL to increase learner access and completion rates while enhancing curricular content.
VUSSC partner institutions produce and deliver relevant courses using eLearning strategies that are scalable and sustainable.

CROSS-CUTTING

In all outcomes there will be strong evidence of **QUALITY** open and distance learning, **GENDER EQUALITY** and the use of **APPROPRIATE TECHNOLOGIES**.

LIVELIHOODS & HEALTH

Skills Development
Learning for Farming
Healthy Communities
Integrating eLearning

TRAINING institutions and civil society organisations have the policy frameworks and increased capacity needed to develop and deliver ODL materials for strengthening knowledge and skills in both formal and non-formal learning environments.
RESOURCE-POOR farming communities, in collaboration with COL and partner institutions, use ODL to increase their knowledge and skills to access new information, training and financing that improves their livelihoods through various economic activities.
COMMUNITY organisations, NGOs and local public institutions have increased their capacity to create and use ODL materials to improve the health and well-being of their communities.
INSTITUTIONS and communities use digital technologies to design and develop learning materials and models that are made available, where possible, as open educational resources and to provide effective and appropriate skills training.

PERFORMANCE INDICATORS

IMPACT

Target countries improve the accessibility and quality of their formal education systems at all levels through the use of ODL tools and strategies.

The income, livelihoods and quality of life of communities and their members are improved through new knowledge, skills and economic opportunities gained by means of ODL tools and strategies.

EDUCATION

OPEN SCHOOLING

- **2 countries** establish new open schools, and **10 existing open schools** significantly extended.
- Open schools in **6 countries** offer new high quality courses in **20 subjects**.
- **10 secondary schools** adopt open education resources as a central part of their learning strategies.
- **5 countries** have developed and integrated digital content in **10 courses**.

TEACHER EDUCATION

- **4 major institutions** in at least 3 Commonwealth regions begin to train/upgrade teachers, or significantly increase the number trained or upgraded, through ODL.
- Teacher education institutions in **4 countries** offer significantly improved curriculum content.
- Institutions in **6 countries** adopt the Child Friendly Schools (CFS) approach.

HIGHER EDUCATION

- **4 major higher education institutions** in at least 2 Commonwealth regions begin education, or significantly increase the number educated, through ODL.
- New or improved curriculum content is in use in higher education institutions in **4 countries**.
- Quality Assurance mechanisms are adopted by **4 tertiary institutions**.

VUSSC

- **8 new courses** are developed and **2 institutions** in 3 Commonwealth regions offer a total of 6 VUSSC courses.
- Agreements are in place committing **10 member states** to take responsibility for the ongoing management of VUSSC.
- NQAs in **6 VUSSC member states** will ensure the implementation of the TQF.

PERFORMANCE INDICATORS

CROSS-CUTTING

80% of independent evaluations of COL activities and 80% of stakeholders in the triennial survey conclude that:

- COL interventions have led to high quality ODL design and delivery;
- COL's interventions have advanced gender equality; and
- The use of technology advocated by COL has been relevant to the outcomes sought.

LIVELIHOODS AND HEALTH

SKILLS DEVELOPMENT

- **6 institutions** in at least 2 Commonwealth regions begin technical vocational education, or significantly increase the number educated, through ODL.
- New or improved curriculum content in technical vocational education is in use in institutions in **4 countries**.
- **3 new skills development courses** (in addition to VUSSC courses) are available as OERs and used by institutions in **4 countries**.

LEARNING FOR FARMING

- Members of farming communities in **6 countries** in 4 Commonwealth regions have significantly improved economic circumstances through ODL.
- **4 government or international organisations** adopt L3F models in 2 Commonwealth regions.
- **20 organisations** in 3 Commonwealth regions strengthen their capacity in ODL to address farmers' learning needs.

HEALTHY COMMUNITIES

- **40 community organisations, NGOs and local public institutions** in at least 20 countries in 4 Commonwealth regions begin to use, or significantly enhance or extend their use of, ODL for education.
- **16 new health-related ODL programmes** are used by communities in 4 regions of the Commonwealth.

INTEGRATING eLEARNING

- **10 major institutions** in at least 2 Commonwealth regions use open educational resources for their curricula.
- Additional low-cost ICT training models are in use in **8 institutions** in 4 Commonwealth regions.

Notes

1. COL's vision is articulated in its three-year plans. COL plans can be viewed on the COL Web site at www.col.org/3YP0609 (accessed 12 June 2009).
2. Please see COL's three-year plans on its Web site at www.col.org/3YP0609 (accessed 12 June 2009).
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