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Insider Accounts

**the Monitoring and Evaluation
of Primary Education Projects in
Sri Lanka**



by
Angela Little



June 1995

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Preface

This study was commissioned by SIDA's Education Division to provide an account of the internal monitoring and evaluation of the SIDA-supported primary education programmes in Sri Lanka.

The study is a reflection-on-practice by one who has been privileged to be involved in the development of SIDA's work in primary education in Sri Lanka over a number of years. Interviews with those responsible for monitoring and evaluation work were conducted in Sri Lanka and samples of work in four of the SIDA-supported primary education programmes were collected and discussed. The archival documentary work was undertaken in the UK and based on a large collection of materials gathered by the author since 1982.

I am grateful to all members of the primary education programmes who shared with me their perceptions of the realities of monitoring and evaluation work in a donor-supported partnership and to all those with whom I have worked on the ground over a number of years. No amount of objective, technical advice from academic textbooks can substitute for the insights gained in the process of working things out together on the ground. This would not have been possible without SIDA, which has patiently supported initiatives in quality improvement in primary education in Sri Lanka since the early 1980s, foreshadowing the interest of the international donor community in "education for all" by a number of years.

The study focusses on the accounts of the development of monitoring and evaluation practices in a development project from the point of view of project "insiders". It makes no attempt to present accounts of the many others who participate in a range of monitoring and evaluation work, for example those at SIDA-HQ, those in the DCO or the "deep-insiders" – the teachers, parents and students in the classrooms and other community members.

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List of Acronyms

AIRDP	Anuradhapura Integrated Rural Development Project
BIRDP	Badulla Integrated Rural Development Project
CEO	Circuit Education Officer
DCO	Development Co-operation Office
EC	Education Component
ES	Education Sector
IFAD	International Fund for Agricultural Development
MEDP	Matara Education Development Project
MIRDP	Matara Integrated Rural Development Project
MOE	*Ministry of Education
MOECAI	*Ministry of Education, Cultural Affairs and Information
MOEHE *	Ministry of Education and Higher Education
MOH	Ministry of Health
NIE	National Institute of Education
NIU	National Implementation Unit
PD	Project Director
PFC	Project Formulation Committee
PSDP	Primary Schools Development Programme (later to become Plan)
PSEDP	Plantation Sector Education Development Programme (later to become Plan)
RDD	Regional Development Division
SIDA	Swedish International Development Authority
SIU	Special Implementation Unit

*Note that between 1982 and 1994 the Ministry of Education changed its name twice.

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CHAPTER 1

Introduction to five primary education programmes

In 1983 SIDA embarked on a programme of support to ninety four disadvantaged primary schools in a small geographical area of the district of Badulla in Sri Lanka. The programme was planned and implemented in collaboration with the Ministries of Plan Implementation and Education. The general objective of this programme was the “quality improvement, diversification and effectiveness” (MOE 1983) of education. Two distinct types of disadvantaged school were identified – schools located in the tea plantations, predominantly Tamil-medium, and recently “taken over” by the Ministry of Education; and schools located in remote rural areas, all Sinhala-medium and government run. This programme of support expanded subsequently to include schools in the entire Badulla district and, through four further programmes, to schools in seven further districts. By March 1994 SIDA’s support to disadvantaged primary schools in Sri Lanka had grown to embrace almost 1,400 schools.

The programmes share some common concerns. They focus attention on disadvantaged schools, most commonly in rural areas. They focus on the primary grades of those schools, years 1–5. They focus simultaneously on questions of participation and quality:

are all school-going age children enrolled and attending school?

what is the quality of the learning and teaching experience in the primary grades?

Despite similarities in broad objective there are a number of differences in emphasis between the five programmes, reflecting differences in the types of disadvantage experienced by the schools, differences in internal organisation and different programme histories.

The first programme to be established was the Badulla District Integrated Rural Development Project: Education Component (BIRDP-EC). SIDA funds were channelled to this component from the SIDA Agriculture Division’s budget through the Ministry of Plan Implementation and the District level Integrated Rural Development Project (IRDP) project director. The programme has been supported in three phases, 1984–88; 1988–91; 1991–1994. The perceived success of this district level programme during its first phase led to the development of a further four programmes over a number of years, two at a national level, and two at district level.

The second programme to be established was the Plantation Sector Educational Development Programme (PSEDP), designed in its first phase (1986–1992) to include plantation schools (mainly Tamil medium) in the districts of Nuwara Eliya, Kalutara and Kandy, coordinated at the national level. That programme is now approaching the end of its second phase (1992–1994) and is moving into its third. The third programme to be established was the Primary Schools Development Programme (PSDP) designed in its first phase (1986–1992) to include disadvantaged schools (mainly Sinhala medium) in the districts of Moneragala, Colombo and Kegalle. This programme is also coordinated at the national level, is approaching the end of its second phase (1992–1994) and is moving into its third. The fourth was the Matara District Integrated Rural Development

Project: Education Component (MIRDP – EC). Its first phase began in 1988, its second in 1991 and its third in 1994. The fifth programme is the Anuradhapura District Integrated Rural Development Project: Education Component (AIRDP), established in 1993. The three district integrated rural development programmes were administered through the Ministry of Plan Implementation (MPI) (latterly renamed the Ministry of Policy and Plan Implementation (MPPI)) in collaboration with the Ministry of Education. The two nationally-coordinated programmes were administered directly by the Ministry of Education.

Figure 1 shows the provinces and districts of Sri Lanka. Provincial level administration superseded the earlier district level system in 1988. By 1994 SIDA-supported programmes have been, or are still operating in the Western, Southern, Central, Uwa and Sabaragamuwa provinces, which include the districts of Badulla (BIRDP), Matara (MIRDP), Anuradhapura (AIRDP), Nuwara-Eliya, Kandy, Ratnapura, Kalutara (PSEDP), Colombo, Moneragala, Kegalle, Kandy, Nuwara Eliya (PSDP).

Although steps are currently being taken to incorporate all five programmes into two national programmes coordinated by the Ministry of Education and SIDA's Education Division, it is important to remember that the genesis of the contemporary programmes, regarded by SIDA as examples of successful development programmes, was unusual. Lying in a rural district some 200 miles from the capital and in an "education component" embedded within a broader programme of support for rural development, the initial educational activity was administered by a Ministry of Plan Implementation and a SIDA Division and DCO officer responsible for agriculture and rural development.

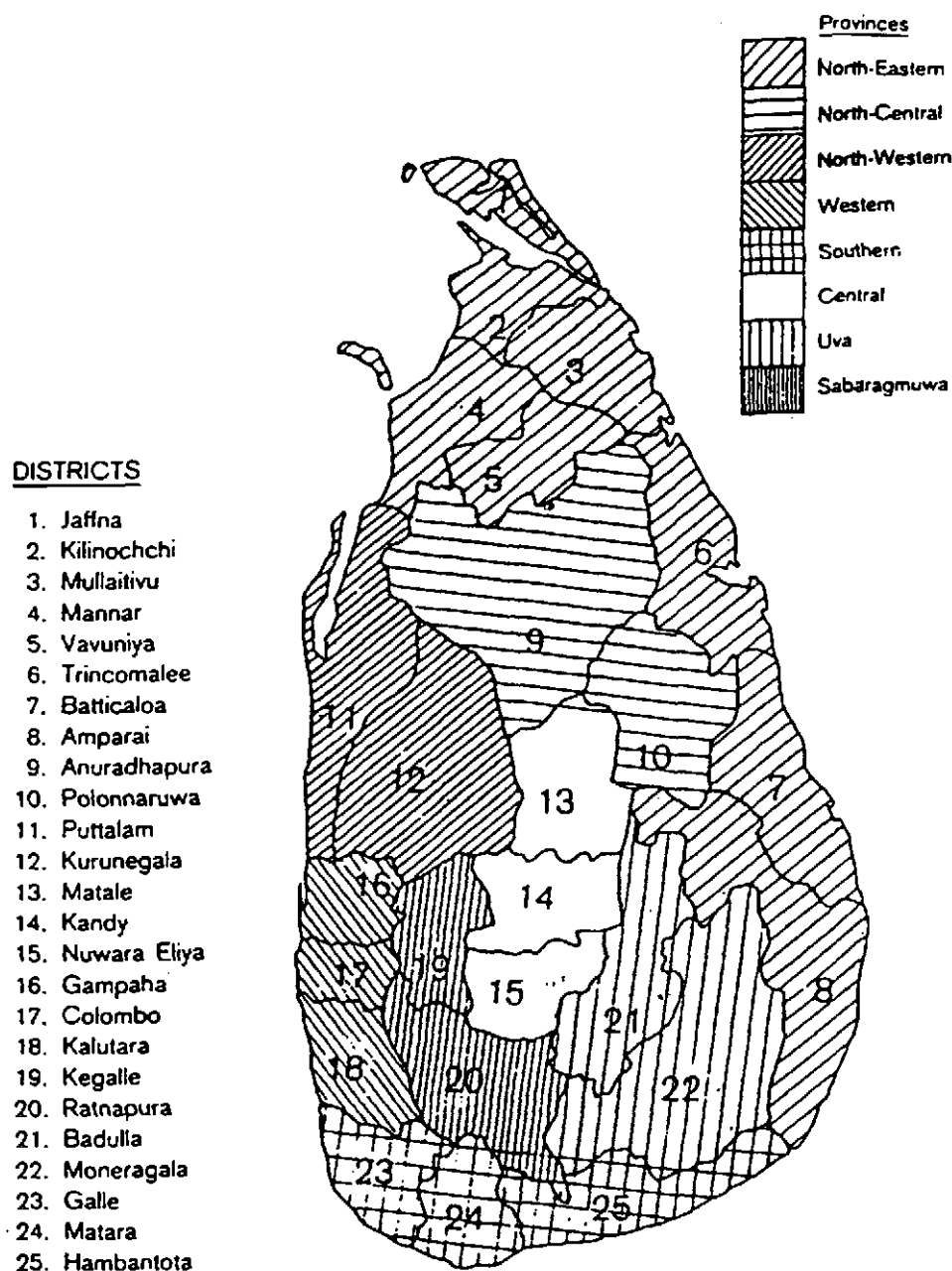
The shift in control of planning, monitoring and evaluation

A common characteristic of the programmes is the shift over time in the locus of control of planning, monitoring and evaluation. In the early stages, each programme has employed the services of Sri Lankan or expatriate advisors to varying degrees (eg Little 1982; Oden and Lauglo 1986a, 1986b; Caspersz 1988; Peiris various; PSEDP Phase 1 Plan; PSDP Phase 1 Plan). External evaluation studies have been undertaken by consultants from Sri Lanka and Sweden (eg Bertilsson 1987a, 1987b; Lofstedt, Caspersz and Laing 1987; Jayeweera 1990; Caspersz 1991; Kotalawala, Lofstedt and Pawar 1991; Senanayake 1991). A Swedish consultant on monitoring and evaluation worked full-time for two years between 1988 and 1990 with PSEDP and PSDP (Persson 1988–89) and short consultancies on the design of monitoring and evaluation systems were undertaken between 1991 and 1994 by a British consultant (Little 1991–4). SIDA HQ and DCO staff have participated regularly in quarterly and annual reviews of all programmes since the inception of the BIRDP in 1983.

However the lion's share of planning, monitoring and evaluation work is now undertaken by "insiders" – the education directors, assistant directors, teacher educators and teachers at the national and district level who implement the programmes on the ground. Goals and objectives are defined internally, activities to meet these objectives are

derived internally, monitoring formats and evaluation indicators are designed internally, baseline/benchmark studies are conducted internally and impact studies are undertaken internally.

Figure 1 Sri Lanka Provinces and Districts



District-level and National-level programmes

The degree of control over planning, monitoring and evaluation enjoyed by even quite junior staff in the project implementation structure is high. But staff at similar levels of the education hierarchy in the different programmes have enjoyed different degrees of control and responsibility, for a number of organisational and structural reasons. The

main differences lie between the district-level and national level programmes. Figure 2 presents the organisational framework within which the district level and national level programmes have operated.

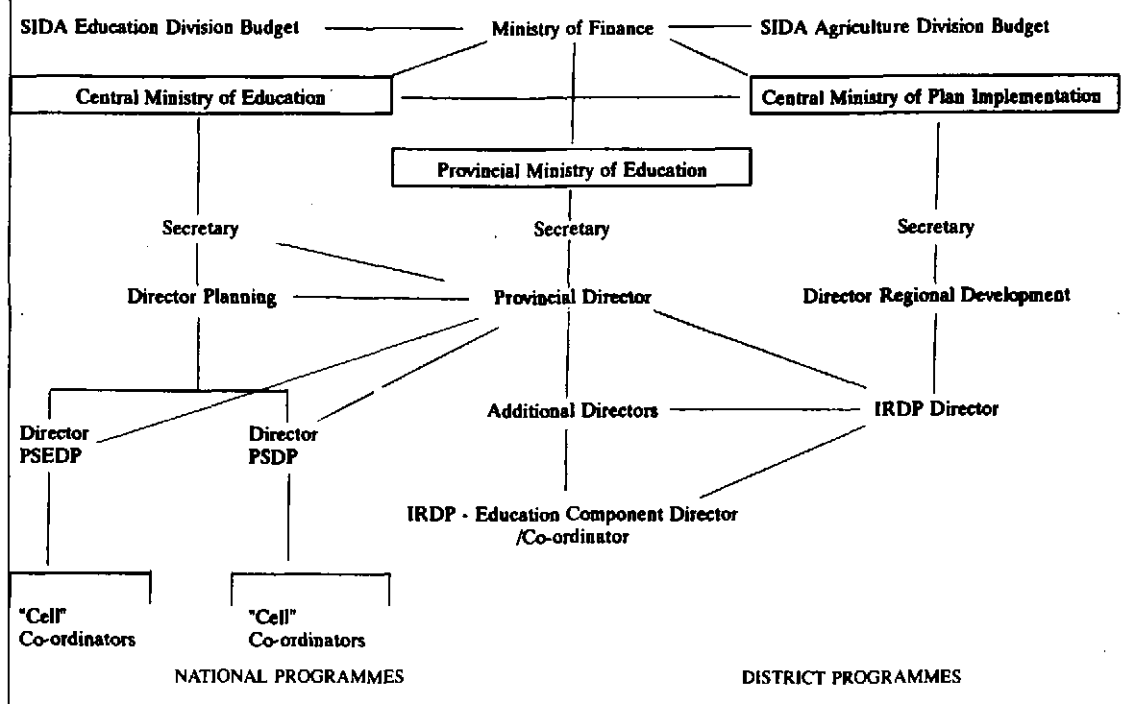
The district level programmes have been funded via funds from SIDA's Agricultural Division, channelled through the Ministry of Plan Implementation. The national level programmes have been funded via funds from SIDA's Education Division, channelled through the Ministry of Education. This means that the monitoring and evaluation of the programmes have been subject to different "chains of influence" and to different norms and practices held by the post holders the chain.

In the district-level programmes the chain has run from SIDA's Agricultural Division to the SIDA-DCO programme officer with responsibility for rural development programmes, to the Ministry of Plan Implementation, to the district IRDP project director, to the district level officer responsible for the education component. Although persons from the Ministry of Education were heavily involved in the planning phase of the BIRDP in 1983, they became less involved thereafter. A junior level officer from the Ministry attended quarterly review meetings for monitoring purposes but annual review teams, organised by SIDA's agricultural division, visited the Ministry of Plan Implementation in Colombo rather than the Ministry of Education. Once the planning phase was over, the role of the Colombo Ministry of Education in the chain of influence was minimal. In the national programmes, by contrast, the chain has involved SIDA's Education Division, the SIDA-DCO education programme officer, the respective programme director located in the Ministry of Education and a "cell" coordinator located in a district.

Although this separation of chains of influence has led to some marked differences between the programmes, most notably in the ease of access enjoyed by the programme staff to financial resources and to face-to-face contact with SIDA officers, there has also been a degree of coordination between the two chains. This coordination and gradual development of a common approach to planning, monitoring and evaluation practice has been effected in at least four ways. First, through the promotion by the Ministry of Education of senior Sri Lankan staff from programmes in one chain to programmes in the other; second, through an external evaluation conducted in 1991 across four programmes; third, through the intermittent employment of the same national and foreign consultant over a number of years; and fourth, through the periodic association of officers and teacher educators at cross-programme professional development seminars initiated in 1988.

The main difference between the projects in the two chains in terms of planning, monitoring and evaluation has lain in the balance of control between the national and district level of the definition of programme objectives, the choice of evaluation indicators, and the design of monitoring formats and of detailed annual activity plans.

Figure 2 The Organisational Framework of the National and District level programmes



In the district-level programmes the definition of programme objectives, design of monitoring formats, choice of evaluation indicators, design of an evaluation model, and the development of annual activity plans has been under the effective control of a district-level education officer. In the national programmes control has lain with the education officers located in the national "implementation units". The education officers in the district "cells" in the nationally coordinated PSED and PSD programmes have enjoyed less control of the definition of programme objectives, choice of evaluation indicators and design of monitoring formats and design than their counterparts in the districts. This difference has had some impact on the sense of "ownership" of and responsibility for the plan, responsiveness to local conditions and commitment to implementation.

Plans: objectives, evaluation indicators, activities and monitoring

The 1994 BIRD, PSED, PSD, MIRDP and AIRDP programmes are characterised by

- clearly stated objectives
- evaluation indicators linked with those objectives
- workplans and timetables for the collection and analysis of data for internal evaluation
- phase and yearly plans divided into projects, activities and subactivities, each linked with one or more overall programme objectives
- monitoring "formats" for each planned activity

Figure 3 presents an example from the PSED programme of the relationship between the first two elements, i.e. between objectives and evaluation indicators. The picture in 1994 is

the outcome of ten years development and learning within and between programmes. The development reflects the improved internal management of the programmes and a greater sense of collective and internal control of the plans and the evaluation process. It also reflects changes in the content and degree of specification of the programme objectives and in the internal design of plans, projects and activities to meet those objectives.

The first plan for the Badulla programme provides a salutary reminder of the scale of development in the programmes over the past decade. The plan, titled “Badulla Integrated Rural Development Project: Education Sector 1984–1986”, comprised two documents – a main report, referred to subsequently as the “red book” and a technical annex. Clearly expressed project objectives are difficult to locate. Page 1 refers to a “plan of action for educational development”. Page 2 refers to 14 spheres of educational activity which require quality improvement, diversification and effectiveness, while page 3 refers to a focus “on the quality and infrastructure needs for (i) the basic cycle of education, and (ii) vocational and non formal education.”

Figure 3 Objectives, Evaluation Indicators and Activities PSED Phase 2

PSED OBJECTIVES

1. Increasing the primary school participation in terms of enrolment of eligible age groups and enhancing the level of completion of the primary cycle of the enrolled students

Activities: community survey of non-attendance and remedial action; maintaining pressure for teacher appointments; expected increase in participation as a result of success in achieving objectives 2 and 3; tutorial support for O-level exam entrants/prospective teachers; school supervision; SDS mobilisation; mothers day programmes

2. Expansion of participation in the secondary cycle of those completing the primary cycle

Activities: selective upgrading of post primary provision; by-product of objective 3; school supervision; SDS mobilisation

3. Elevation of students achievement levels especially in Mathematics and Language

Activities: In-service training for new and serving teachers; provision of materials, classroom and school supervision; development of intensive reading schemes; school competitions; teacher visits; teacher newsletters

EVALUATION INDICATORS

annual enrolment by grade, sex and school; average attendance by grade, sex and school; age pattern of enrolment in year 1; net enrolment ratios – sample schools; dropout rate; student/teacher ratio; average classroom space; repetition rate

transition rate;

promotion rate; repetition rate; achievement score

The chapter towards the end of the main document, on Monitoring and Evaluation, is rather clearer, stating not only the objectives of quality improvement in education but also the summary indicators by which the success of the programme in achieving these objectives may be judged (Figure 4). Although a link between objectives and evaluation indicators expressed in Figure 4 appears to be clear on paper, experience over the next few years was to demonstrate that few of the project implementors internalised the link and used it in their everyday thinking and action. Why?

Figure 4 Extracts from the Badulla Project Plan Phase 1

there are four major objectives in the quality improvement of education.. namely,

1. to improve levels of knowledge and skills among all young people and adults
2. to improve the health of young people and adults
3. to increase the levels of economic activity among youths especially among females
4. to increase participation in the basic education system

In order to evaluate the success of the programme in achieving these objectives the following summary indicators are suggested:-

A. School indicators	1. School enrolment by sex 2. Average daily attendance by sex 3. Dropout rates by sex 4. Repetition rates by sex
B. Student achievement	1. Reading and maths achievement for grade 3
C. Nutrition	1. School garden activities 2. Kola kenda activity 3. Boiled water activity
D. Health habits	1. Maintenance of latrines
E. Health status	1. Health record card by sex 2. Height, weight and mid arm circumference
F. Non Formal Education	1. Functional literacy by sex 2. Increased economic activity by sex 3. Percentage population illiterate by AGA division 1981-1991 4. Percentage population gainfully employed by AGA division 1981-1991

Source: BIRD P: Education Sector 1984-1986 Main report p.46

Some of the reasons concern the presentation of objectives within plan documents and the constraints placed on those who wrote it by their terms of reference, designed jointly by the Ministry of Education and SIDA. Some concern the separation of the role of planners from implementors while others concern the logic of time in the enterprise itself. Implementors need to learn how to implement activities before they can evaluate the extent to which they contribute to the achievement of objectives.

The presentation of plan objectives in the “red book”

Although there are several references to quality development of education in the first chapter of the plan they are very general. The chapter focuses on the choice of target schools, the problems and constraints faced in the educational development of schools in the targeted areas, and the proposed programmes designed to overcome these problems. As we saw in Figure 4 more specific objectives are listed, appropriately, in the chapter on evaluation. However, their position on page 46 of the “red book” was less than optimal from the point of view of those who would come to implement the plans some eight months later, none of whom were members of the original planning team. The phase 2 BIRDP project objectives by contrast were more clearly specified and more appropriately placed near the beginning of the project documentation. They were:

1. Quality improvement and expansion of formal education (years 1–5)
2. Quality improvement and expansion of non-formal education
3. Mobilisation of school development societies (SDSS)
4. Improvement of health of children (years 1–5)

The phase 3 BIRDP objectives were different again. Broad aims were distinguished from project objectives :

Aims/overall goals

1. quality development and expansion of formal education in the years 1–5
2. to consolidate the impact of phase 1 and 2 activities, aimed at long term sustainability

Objectives

1. to improve the achievement levels in maths and language of the primary child of the Badulla District
2. to increase educational participation of the 5–11 age group of Badulla district
3. to provide phase 2 schools with unmet infrastructure inputs to achieve the above objectives

Besides location and specificity, several other observations may be made about the presentation and evolution of objectives over time. The objectives become progressively more focused on education and learning. The health objectives are accorded a lower priority over time as the health component of the IRDP becomes progressively weaker and eventually ceases to exist at all. In phase 1, adult learning, economic activity and health were embraced as objectives alongside children’s learning. In phase 2, adult education is dropped as an objective and community mobilisation is elevated to the status of an objective. In phase 3, the learning achievement objective has been specified further to refer to maths and language achievement among primary school children. An increased level of educational participation is specified explicitly as an objective, whereas before it was treated as an objective only implicitly.

Both the location and the relative lack of specificity of the objectives in the phase 1 documentation reflect the planning context in 1983 which is described in some detail in Annex 1. The project plan had a long gestation, during which time there had been considerable change in the definition of who the project was intended to benefit, what activities should be funded, who would fund them and who should decide what should be funded. The planning which gave rise to the plan which was funded eventually occurred in a Ministry of Education climate of project planning fatigue.

The language of the early plan was presented in terms familiar to the Ministry of Education. Planning by objectives and impact monitoring were not part of the dominant vocabulary of the planning language at that time, neither in the Ministry nor in SIDA. Even if they had been it is doubtful whether those who assumed responsibility for implementing the plans would have found their way to according monitoring and evaluation a high priority. As one education officer involved in the implementation of phase 1 of Badulla recalled:

in BIRDP Phase 1 we were not very specific about things like monitoring and evaluation... our preoccupation was with getting things done... honestly I didn't even think about doing evaluation

Another who did implement a procedure – the conduct of a baseline survey of the conditions of schools – which would have facilitated impact evaluation in the longer term, was unaware of the rationale behind the activity

in MIRDP we did the baseline survey but did not understand that it was part of a bigger evaluation. ... such evaluation is very different from what normally happens in the Ministry

The practice of monitoring and evaluation developed only slowly in BIRDP and in the other programmes. The purpose of subsequent chapters is to describe the development of “insider” monitoring and evaluation, both in principle and in practice.

CHAPTER 2

Monitoring and Evaluation: the advice from ‘outside’

There is no shortage of books and learned articles on the role of evaluation in educational projects. Ideas, approaches and techniques for educational evaluation mushroomed in the USA and the UK during the 1960s and 1970s and much of that literature continues to inform present day thinking on educational evaluation. The literature on internal monitoring in educational programmes is thinner and is more likely to be found within a broader literature on management, accountancy and administration.

The purpose of this chapter is to present some of the main ideas which have informed my thinking about appropriate evaluation within primary education programmes. My role over the past three years has been to work with Sri Lankan colleagues in the development and consolidation of internal evaluation systems. This has meant advising colleagues on the conduct of evaluation, rather than conducting evaluation myself. A few colleagues had already received formal training in educational evaluation as part of their post-graduate education training. They also had some prior experience of monitoring and, to a lesser degree, evaluation through their work experience. Thus, the work on internal monitoring and evaluation was to develop through an interaction of several sets of ideas, of which mine was one.

As an actor in this process and the author of this monograph, I will attempt to explain the key ideas which I have used in this process of development and consolidation. At the outset let me state that I did not set about my work with a single bible or orthodoxy on educational evaluation in hand. My understanding of evaluation was influenced during the 1980s by a knowledge and experience of research and evaluation techniques in education which drew from psychology, sociology and development studies. This chapter presents a few of the main ideas about evaluation which influenced me, and a few of the main ideas which I re-presented to programme staff.

The purpose of evaluation

My understanding of the purpose of evaluation was consistent with Cronbach’s extensively quoted definition. Evaluation is

...broadly, ...the collection and use of information to make decisions about an educational program

(Cronbach 1963 p672)

WHAT TO EVALUATE?

What to evaluate is a little less clear-cut. From an outsider’s perspective and certainly the perspective of the aid donor, what was to be evaluated was the extent to which the project met its objectives. Impact evaluation had been specifically added to the terms of reference for the BIRDP planning team by the SIDA-DCO. Impact evaluation assumes that objectives have been stated in advance and can be operationalised. It also assumes that project planning has followed an objectives approach, which, as we saw in chapter 1, was a planning approach which developed only gradually. Planning and evaluation by

objectives attracts considerable support from the educational literature. Writing specifically on curriculum evaluation, Shipman (1979) argues that the objectives of teaching and learning and of educational provision in general must be defined in terms of objectives which can be operationalised.

Educational evaluation via objectives has not been without its critics. Some question whether education is necessarily a means to an end and argue that the processes and content of education can have an intrinsic value which cannot be evaluated against objectives. Others have suggested that an objectives model of education is inappropriate for the evaluation of the certain types of skills (eg understanding), though it may be appropriate for others (eg acquisition of information). It has been argued that education for understanding is successful to the extent that behavioural outcomes are unpredictable rather than predictable. In this case evaluation should focus on processes rather than outcomes. A third criticism of the objectives approach is that it overlooks those outcomes of educational programmes which are not completely predictable, while a fourth is that although an objectives approach permits judgement of success and failure, it offers little by way of diagnosis of the reasons *why* a programme may have succeeded or failed.

HOW TO EVALUATE?

Most writers and practitioners of educational evaluation agree that it is desirable to use a wide range of data sources to generate the information for evaluation. There is less agreement over the use of the so-called 'scientific approach' to the evaluation of social, as distinct from physical, programmes and events. This disagreement reflects distinctions and debates in Western social sciences prevalent during the 1970s and 1980s between positivist and interpretive approaches to knowledge.

The scientific or positivist approach assumes that the social world is ordered according to patterns which can be investigated through systematic observation and experiment. The actions of individuals are seen as responses to broader external forces. Hypotheses about responses and their antecedents are generated, operational categories of observation created, data collected and statistical tests applied. Experimental approaches are favoured, subject to ethical considerations. Many of the educational programme evaluations conducted in the US during the 1960s and early 1970s were influenced by the experimental approach. Such studies often involved baseline pre-tests and impact post-tests among "subjects" in experimental and control groups.

The interpretive approach on the other hand accords a much greater role to individuals in the creation of social systems rather than their response to them. Hypotheses are generated during rather than before the research and there is an emphasis on understanding and interpretation rather than prediction. Methods focus on subjects' interpretations of social programmes and events, and embrace the approaches of phenomenology, symbolic interaction and ethnography, all of which emphasise "the need to give accounts of what a person is, or does, in terms of what he, or his fellows, thinks he is, or does" (McCormick and James 1983:167). Evaluation studies influenced by this approach emphasise case-studies of individuals and schools and actors' experiences of programme intervention more than the understanding of the causes of successful or unsuccessful outcomes.

WHO EVALUATES?

The advantages and disadvantages of insider and outsider evaluation are well known. Outsiders can be impartial and objective. But they lack knowledge and understanding of the complexities of life “within” a project and may oversimplify key processes. Insiders possess a wealth of understanding of project processes and usually have an interest in knowing whether aspects of a project have been successful. But they are more likely to be partial and subjective and to over-emphasise the importance of personal experiences and underemphasise the experiences of others.

WHEN TO EVALUATE?

A key distinction in the educational evaluation literature is that between formative and summative evaluation (Scriven 1967). Formative evaluation seeks to identify and seek solutions to problems during the implementation of a programme. Information is fed back to the project implementors with the intention that some of it may be used to influence the implementation process. Summative evaluation, on the other hand, attempts to judge the worth of a programme after it has been completed.

Skills and Organisation

Writing on monitoring and evaluation for development projects Casley and Kumar (1988) comment

a common constraint on the options at each stage of the process of designing a system to collect data is the level of available resources. . . . it is fruitless to design a data collection operation to reach a widely dispersed sample of respondents with the use of questionnaires and in-depth interviewing techniques if neither the logistical resources to manage such an operation nor the skills to collect and observe accurate data are available.

An important set of decisions which has faced this author throughout her work has been the selection of knowledge and monitoring and evaluation techniques appropriate to the skill levels of staff. There is little point in espousing the virtues of complex and academically fashionable ideas and techniques of evaluation in situations where personnel have neither formal training in nor experience of educational evaluation, nor recourse to continuous advice. At the same time, if tasks are matched too closely to existing levels of skill then developmental and learning opportunities are missed.

One of the constraints faced in the evaluation work has been the availability of staff. The division of labour within all the project organisation units has been relatively simple, with teacher educators and officers each responsible for a range of activities. The combination of responsibility for the implementation of several activities with the continuous monitoring of them has been a highly effective way of organising the monitoring work. The combination of responsibility for the implementation of several activities with that of impact evaluation has proved less effective. Yet few of the programmes have found a way of deploying staff effectively and efficiently to work on the several tasks of impact evaluation. Constraints of this kind have guided, often subconsciously, the choice of advice given at different stages.

In the sections which follow, extracts from materials developed at and for training workshops on monitoring and evaluation are presented. These represent the codified ideas presented at different points during the past three years by the author. In chapter 3 we will see how some of the those ideas have been internalised by project staff.

Specific Programme Advice: the why, what, who, when and how of monitoring and evaluation

The following notes were written for and distributed at a training workshop for project staff from PSEDP, PSDP, BIRDP and MIRDP.

Monitoring is the process of collecting information in a highly simplified form. There are two main types (i) financial monitoring, and (ii) activity monitoring. Administrators of projects are concerned to know whether money allocated has been spent and whether activities planned have taken place. Monitoring is part of the regular routine of administration. Its main function is control and short-term planning at different levels of an administrative and organisational system.

The following people are likely to be involved in monitoring – project cell co-ordinators, teacher educators in project cells, school principals, project directors, SIDA-staff in Colombo and Stockholm. These different levels of staff are likely to need different sorts of monitoring data and will use them for slightly different control and planning purposes. For example, an education officer in a project cell who is responsible for running a particular in-service course needs to monitor how many of the invited participants turn up, how many attend courses regularly and whether resource persons performed what they had been asked to do. The project cell co-ordinator will need to know whether all courses planned over a year have occurred, whether the same or different teachers are attending the courses and what the overall participation has been relative to target numbers. He or she may need the information in order to co-ordinate the planning of equipment inputs to schools, to plan next years programme of courses, and to account for expenditure. The project directors in PSEDP and PSDP need to know from each of the project cells levels of course activity, whether some types of courses are well-attended, whether the training programme is reaching out to all schools in the project, especially the most disadvantaged schools. The SIDA-DCO staff will wish to monitor financial and activity progress in the programme as a whole so that prolongation of the programme in existing and new provinces may be discussed.

Evaluation overlaps in meaning with monitoring but goes further. The purpose of evaluation is to make judgements about the success and the failure of the programme, project and sub-projects with the purpose of making improvements. A more complex activity than monitoring, it involves a subtlety of judgement combined with an understanding of the intricacies of project activity. Evaluation takes place at several levels of the project structure and occurs in both an informal and formal manner.

Formal evaluation falls conventionally into four main types, organised along two dimensions:

who conducts the evaluation? (insiders? or outsiders?)

when is the evaluation conducted? (during a programme? or at the end of a programme?)

These two dimensions create four different types of evaluation, internal formative, internal summative, external formative and external summative.

Who evaluates?		When does evaluation occur?	
		During project	End of project
	Insiders	Internal Formative	Internal Summative
	Outsiders	External Formative	External Summative

BIRDP has experienced external summative evaluations on two occasions. The first evaluation was summative in the sense that it occurred at the end of a phase, but it was also formative to the extent that it affected decisions about the content and form of phase 2. External and internal formative evaluation has been conducted by the consultants who, along with the project implementors, take stock of progress periodically and discuss changes in implementation strategy.

THE EVALUATION MANUAL

The most extensive “how to” advice, written especially for these programmes is contained in a manual written by Little and Sivagnanam (1992) and published under the imprint of the Ministry of Education. It codified discussions and seminars run during 1992 and was intended to be used by all project staff involved in internal summative evaluation work. Extracts from it are adapted below and are presented in the more informal language of a manual. One of the problems faced both in the training workshops and in the writing of this manual was the balance of advice between the general and specific characteristics of projects. The manual was written to reinforce advice and exercises conducted during the workshops.

The precise project objectives and the full range of evaluation indicators vary from programme to programme. However, two objectives are shared by the projects – improving the quality of learning; and increasing educational participation

The manual focused on these two objectives only and outlined the evaluation indicators and procedures which staff in all programme were advised to follow. Staff were also advised to incorporate these procedures into a project-specific evaluation report and to include all objectives, indicators and plans for data collection and analyses specific to that programme.

Two questions which arose in relation to the evaluation of the objectives listed above were:

how do we know whether changes arise from project intervention or from other factors?

do we need to collect data from all schools or just some schools?

The first of these was addressed through an evaluation design which combined baseline and impact measures from “experimental” (i.e.project) and “non-experimental” (i.e.control) schools. Control schools share social and economic characteristics similar to those of the project schools but are not subject to project intervention.

	Baseline	Impact
Project Schools	Data collected	Data collected
Control Schools	Data collected	Data collected

This design enables the measurement of change against a baseline and a comparison of change in project schools with changes in the control schools where there has been no programme intervention.

Remember that simple comparisons of school data at two points in time do not necessarily indicate impact. Schools outside the project area may show the same improvements over the same period of time. This is why we try to collect data from “control” schools, i.e. schools not included as target schools in your or any other special intervention programme. Past experience suggests that the baseline data are often not analysed fully at the start of the project. By the time others come to process the data several years later it is often too late to fill data gaps which inevitably arise.

The advice given in relation to the second question was that in trying to evaluate the effectiveness of a programme, it is not always necessary to collect data from all schools. Data may be collected from a sample of schools only. However, you must be very careful to choose your sample carefully and collect baseline and impact data from the same schools. If you choose your sample ‘randomly’ make sure that it is ‘random’. For example, put all the names or school numbers in a hat and pick out the required number.

Improving the Quality of Learning: Indicators

At a minimum the use of two indicators of improvements in the quality of learning are suggested

improvement in mean achievement scores in language and mathematics by school in primary year 4

decreases in repetition rates

We recognise that these are not only indicators of improvements in quality. There are many other ways of judging whether quality has improved or declined. However, we also recognise that our evaluation system requires a manageable and analyzable data base, so we confine ourselves for the time being to these two indicators. Applying the

above considerations to these two indicators we would suggest that data are collected according to the following scheme:

Indicator	All	Sample	Baseline Year	Impact Year	Annually	Project Schools	Control Schools
Project	+	-	+	+	-	+	+
Control	+	-	+	+	+	+	+

Achievement Tests

Practice has varied from project to project in the test used and in the month of administration. Experience suggests that we should dispense with the year 2 tests and focus on the year 4 tests. But please remember that the projects are designed to improve performance in *all* years. We are using the year 4 test scores only as an **indicator** of change in performance throughout the school.

If you have already administered your baseline test then use the same test for the impact test in three years time. Also note carefully the month of administration and administer the impact test in the same month. If your project has not yet administered its baseline test then we should try to standardise the test across projects as far as possible. The internal quality and standard of the tests should be checked by the primary branch of the National Institute of Education.

Test Administration

It would also be a good idea to administer the tests in the same month and to decide carefully on who will be tested. If your test is designed to test achievement across the full range of the year 4 syllabus then it is only fair to test children either at the end of year 4 or at the beginning of year 5. This should be discussed and agreed on by the project directors and those responsible in the project cells for the evaluation work.

Please follow procedures for test administration and test marking carefully. Do not let test papers remain in the schools. Impress on the teachers the need for 'fair' testing. There are no benefits to be gained for high performance. The statistical analysis recommended (Annex 2) is one of the simplest available, though it may appear complex to some. Several of the project staff have mastered these techniques over the years and you should seek further advice from them if necessary.

Summary of Steps

Throughout the manual several summaries of "steps" were recommended. For example the steps recommended on the administration of the achievement tests read:

1. Have your baseline test checked for intrinsic quality by NIE.
2. Decide on the class group to be tested and the month of test administration; select 'control' schools (nb the control schools used to collect test data should be the same as those used to collect repetition data).
3. Organise test invigilators and the production of scripts (make sure the physical appearance of scripts is of high quality). Collect all script papers.
4. Mark tests in project cells as soon as possible.
5. Calculate means, standard deviations, standard errors by male/female/total in each school. Also calculate for the project area as a whole.
6. Write a summary report enclosing baseline statistics as annexes in 1992.
7. Re-test three years later in the same month in both project and control schools.
8. Mark as soon as possible after the test.
9. Calculate means, standard deviations, standard errors by male/female/total in each school. Also calculate for the project area as a whole.
10. Calculate the difference between means for each school for male/female/total and for the project area as a whole.
11. Write the 1995 report noting details of characteristics of the test administration, dates of administration, summary statistics, interpretation of data. Have this report ready for and make available to the external evaluation team.

Repetition Rates

The repetition rate is the proportion of pupils repeating the same grade in the following year. We decided during workshops to use the repetition rate as an indicator of the quality of education. We realise that repetition rates are used more conventionally as an indicator of the internal efficiency of a school system. We are working on the assumption that repetition occurs when a student has not reached a standard of academic achievement sufficient to justify progression to the next grade. We recognise that standards and the bases for decision-making may vary from school to school and from grade to grade – but we assume that a high percentage of repetition in a particular grade indicates that the percentage of students has not reached the minimum standard of performance judged necessary by that school for progression to the next grade.

We would suggest that repetition rate data should be collected from all project schools and from some control schools annually. The data should be calculated by school, grade and sex.

To calculate the Repetition Rate for Girls

In each grade you need to know the number of girls repeating the grade in a particular year and the number of girls in that grade on 1 June of the previous year. Hence,

Repetition Rate in Grade X for Girls =

$$\frac{\text{Number of girls repeating grade X in year A+1}}{\text{Number of girls in grade X on 1 June of year A}} \times 100$$

To calculate the Repetition Rate for Boys

In each grade you follow a similar procedure to that outlined above.

Repetition Rate in Grade X for Boys =

$$\frac{\text{Number of boys repeating grade X in year A+1}}{\text{Number of boys in grade X on 1 June of year A}} \times 100$$

To calculate the Repetition Rate of all students in each grade

Repetition Rate for all students in Grade X =

$$\frac{\text{Number of students repeating grade X in year A+1}}{\text{Number of students in grade X on 1 June of year A}} \times 100$$

The manual went on to suggest ways of recording the repetition information.

Increasing Educational Participation: Indicators

All programmes share the objective of increasing educational participation among children of primary school age in the catchment area of the school. The extent to which this objective has been achieved can be measured by various indicators. These are listed below. We suggest that data on some of these indicators are better collected from all schools; some are better collected from a selection of schools; some are better collected annually, while other data need only be collected in the impact year and the baseline year. All data should be collected from both project and control schools.

Indicators	All	Sample	Baseline	Impact	Annually	Project	Control
Annual Enrolment by grade, sex and school	+		+		+	+	+
Annual average attendance by grade, sex and school	+		+		+	+	+
Age pattern of enrolment in grade 1 by sex and school	+		+		+	+	+
Gross Enrolment Ratio		+	+	+		+	+
Net Enrolment Ratio		+	+	+		+	+
Drop out rate	+		+		+	+	+
Student/Teacher Ratio	+		+		+	+	+
% lost working days due to teacher absenteeism in the previous year	+		+		+	+	+
Average classroom area available per student	+		+		+	+	+

Annual Enrolment (Primary) by Grade, Sex and School

Annual enrolment is the number of students registered on the roll of each grade as on 1 June. The MOEHE annual school census requires the number of students registered on the roll on 1 June to be included in the census. These figures can be presented by gender and grade and aggregated to the level of the primary cycle. The number on roll aggregated to primary cycle can be obtained by adding up the enrolments in grades 1,2,3,4 and 5. The total for boys and girls should be worked out separately.

Although a comparison of enrolment in a year with that of the previous years would give a rough idea of the increase or decrease in enrolment, such figures can also be misleading. Changes in enrolment can only be interpreted meaningfully when considered in relation to demographic data in the catchment area. The collection of demographic data will be considered later.

Annual Enrolment in Control Schools

A comparison of the percentage increase in enrolment in the project schools with that in schools not covered by the project in the same area can give some indication of the extent to which the plan has achieved its objective of increasing participation. Therefore, annual enrolment by grade, sex and school should be collected from control schools as well as project schools.

Recording of Data on Annual Enrolment

We would suggest the collection and recording of enrolment data for the project schools for four years, to include the preceding three years in which the school is incorporated in the project. Collection and recording of enrolment data from control schools will continue until such time as those schools remain outside the project.

It is suggested that the following schedule be used to record the data on annual enrolment in project schools and control schools separately.

Primary (Grade 1–5) Annual Enrolment in Project/Control Schools

Name of School	Code	Year			Year			Increase	Year			Increase
		M	F	T	M	F	T	%	M	F	T	%

Analysis of Annual Enrolment Data

The impact of the project intervention on enrolment in years 1–5 can be analysed in at least two ways.

- (1) By comparing the percentage increase in enrolment in the same school after project intervention with that prior to intervention (over a three year period both before and after).
- (2) By comparing the percentage of increase in enrolment with that in the control school during the same period after intervention.

Comparison could be made on the basis of individual schools as well as groups of schools.

Enrolment Ratios

Enrolment and enrolment ratio data are different from each other. Enrolment tells us simply how many children are enrolled in a grade or a school. Enrolment ratios tell us what proportion of children residing in an area are enrolled in school. Gross enrolment ratios indicate the number of children enrolled in a particular cycle of education, compared with the number of children in the population in the age-group for which that cycle of education is intended. Net enrolment ratios by contrast indicate the number of children of a specified age range enrolled in school compared with the number of children in the population in that specific age range.

Enrolment ratios are normally calculated for an entire national system or for large geographical areas within the system. They are not normally calculated for catchment areas of 2–3 mile radius. However we propose to work these out on a catchment area basis for a limited number of areas.

It is important that we gain some understanding of whether greater proportions of children of school going age and residing in the vicinity of project schools are attending school (project or not) as a result of the project intervention.

We propose to do this simply in the following way:

1. Select 5 schools at random from the project cell area and control area, ie a total of 10 schools. The principal or other responsible teacher should enlist the support of community leaders and educated youth in the area and conduct a household survey within the 2–3 mile catchment area of the school.
2. These enumerators should collect data from each household on those children aged 5+ to 10+ (but not 11), sex, whether currently enrolled in school or not, and in which school the child is enrolled (whether within or outside the catchment area).
3. The enrolment ratio can be calculated for boys, girls and total by comparing the numbers enrolled in a school with those of school age but not enrolled. This generates a ratio known as the net enrolment ratio.
4. An additional computation of interest would be a comparison of numbers attending school in the catchment area with those attending schools outside the catchment area.
5. This exercise should be undertaken in the baseline year (1992) and three years later (in the same month).

The manual continued to present advice for seven other indicators of increased participation.

Conclusion

The advice on monitoring and evaluation from the 'outside' to the inside project staff has taken a particular form. Monitoring has been regarded as a set of desirable administrative and managerial routines designed to check the progress of a large number of detailed activities. The term 'monitoring' is confined to low-level, detailed activities and is not extended to broad objectives. This advice may have deviated from the use of the term by SIDA-Stockholm, wherein "impact monitoring" seems to convey the monitoring of the impact of the plan taken as a whole, what might be termed the monitoring of the achievement of objectives. Evaluation on the other hand has been linked explicitly to broad objectives and distinctions have been drawn between insider and outsider evaluation and formative and summative evaluation.

The link between evaluation and objectives reflects the planning by objectives approach adopted gradually by the projects. The overall design of data collection has followed a fairly traditional pre-test/post-test style. In terms of much contemporary Western literature on educational evaluation the style adopted may be castigated by the 'interpretivists' and 'process' evaluators as 'positivist' and 'experimental'! While this charge is acknowledged the evaluation style is justified in the following ways.

The issue of project evaluation was raised initially by outsiders, accountable to a constituency far removed from those who implement the programme. Remote outsiders wish to know whether their actions and resources make any difference to the situation on the ground. They wish to understand whether projects promote change over time. They need to convince political constituencies and tax payers located thousands of miles from the programme that national revenue should be used to "aid" another country. While information about how a particular teacher, student or parent or school reacts to the project and identifies or not with the project activities may well be of interest to the remote outsider, it is not likely to be his/her primary concern. The primary concern is more likely to be whether the programme as a whole makes any difference to the lives of a large number of people .

As we shall see later in Chapter 6 there has been considerable scope within this broad evaluation framework for the development of a more process-oriented approach to evaluation and a move away from the 'control' group design. This has become possible as teacher educators have become more aware of the value of micro-level evaluation. Some of these studies have helped teachers recognise the value of "before and after" comparisons of student performance and have encouraged them to address their own teaching methods and those of their colleagues.

The general approach adopted is also justified in terms of the skills and training of staff. Many "process-oriented" studies rely on a mass of qualitative data, often difficult to analyse and even more difficult to interpret. The conduct of high-quality "qualitative" evaluation demands, arguably, more skills and training than the conduct of high-quality "quantitative" evaluation. Few of those on the ground have formal training in qualitative and process evaluation.

CHAPTER 3

The Monitoring and Evaluation Practitioners: ideas, purpose and language

Textbooks and learned articles convey carefully articulated ideas about the purposes of monitoring and evaluation. Sometimes they introduce new terms into the language of monitoring and evaluation and suggest new applications. And although all stress the role of feedback in the development of plans and ideas, few studies of monitoring and evaluation gain feedback from those who put the theory of monitoring and evaluation into practice.

In this chapter we examine the ideas and perceived purpose of monitoring of evaluation from the perspectives of sixteen project implementors from BIRDP, MIRDP, PSEDP and PSEDP who are attempting to put their understanding into practice. All sixteen are either project directors at the national or district level, assistant directors of education or teacher educators. Two have been involved in the projects since the inception of the BIRDP; some others have been involved for less than two years. Although teachers and school principals are also actively involved in data collection of various kinds and contribute directly to both the monitoring and evaluation process, none was interviewed as part of this study. The checklist of questions discussed during these interviews is presented in Annex 3.

Previous experience of the monitors and evaluators

In chapter 1 it was suggested that the dominant planning culture in which the primary education projects took root did not prioritise monitoring and evaluation activity. However it would be misleading to suggest that monitoring and evaluation played no role in the daily professional lives of officers of the Ministry of Education, or that monitoring and evaluation were completely foreign ideas and practices. All those interviewed (directors, assistant directors, officers and teacher educators) had some experience of monitoring and/or evaluation in their previous work. A cell coordinator who, by all accounts, had been a highly successful school principal in the 1970s, recalled

I was a principal and later a circuit education officer. In terms of national goals my school was at the bottom level – 2000 students and 11 teachers in 1977. ... I managed somehow to bring it up from that position. If I recollect I was monitoring many of the activities in the school. ... I had to, to bring about change

Others recalled their experiences as circuit education officers. One referred to the “checking” role of the circuit education officer, checking enrolments, inventories of items in the schools, attendance registers. Others referred to their involvement in team inspections in the schools where classrooms were observed and reports written; or to their roles as school management advisors where classrooms were supervised, data collected and school level planning encouraged. Another had worked as a planning officer in a divisional office, collecting figures and sending them to the Ministry’s planning and statistics branch.

Monitoring and evaluation: then and now

All contrasted those experiences with present practice in a number of important ways. One contrast was between activity which is discrete, on-off and ad hoc; and activity performed continuously and methodically within a coordinated system. The former circuit education officer who referred earlier to the checking (monitoring) role of the CEO said

we checked activities every now and then. . . . we checked things as and when we thought to. . . . now what we do is more detailed, more methodical and more scientific

Another former CEO characterised the difference between his earlier experience of team inspections and his experience now of school supervision in terms of information feedback, activities and broader goals and plans

then we monitored activities. . . . but there were no proper formats and the reports generally ended up in the record room. . . . and there was certainly no remedial work. . . . now we know what our broad objectives are. . . . those days we did not know our goal. . . . now we know that we are concerned with quality and remedial action. When we monitor we do it according to an activity plan.

The stress on remedial action highlights the use to which information collected through monitoring and evaluation is put, and by whom. The former planning officer, recalling how she used to collect figures in the divisional office and send them to the Ministry, went on to say

but we never did anything with the figures. . . . we just went on collecting figures and sending them on. I have a postgraduate degree in statistics but we never applied those statistics. . . . only now do I know what to do with some of those calculations.

We shall see later in chapter 6 how this teacher educator is now using data collected and calculations performed for some very intensive feedback and remedial work with teachers.

Information can be fed back to individuals in a variety of ways for remedial action. But the link between the source of authority of the person feeding back the information, the professional motivation of the person to whom the information is being fed and the manner in which that information is fed back is complex. A former school principal and school management advisor described his experiences in terms of shifts in the control of resources and in his reported attitude towards teachers

I had been a school principal and school management advisor. . . . yes we collected data and supervised classrooms and we encouraged school level planning. . . . those days it was only advisory. . . . we had no resources to back up our advice. . . . so we had no authority. . . . we could preach, we could counsel but there's no authority without the resources. Now it's different. We have the resources, no-one can argue with us. . . . and we also have time targets which we have to keep to . . . earlier I had done supervision work in the schools but only after the first Bandarawela seminar did I begin to think about supervision in a different way. Earlier it had always been fault finding. Now we think of it as counselling. Somehow we have equal status. The teacher is the expert. We may know the short cuts so we suggest them and hope they will try out. it's a change from commanding to guiding.

On the one hand he believes that his control of resources gives his advice greater authority; on the other hand he feels that his role now should be that of "guide" rather than "commander".

In their accounts of the similarities and differences between the experiences of monitoring and evaluation then and now, most of those interviewed felt the biggest difference lay in their experience of evaluation, especially impact evaluation, in relation to broad goals and baseline data. Monitoring, in the sense of checking that activities were being carried out, was not an unfamiliar idea. But evaluation, in the sense of assessing whether broad objectives, each of which involves the satisfactory achievement of clusters or groups of activities, have been achieved over a period of time was, for most, an unfamiliar idea. Here the PSDP project director describes his shift in understanding over time

we have learned that our plans needed clear objectives and indicators. . . our problem was that the early plan document for PSDP had not stated clearly the objectives. All the activities were there, lots of them, but not the broad objectives they related to. Therefore it was difficult to know how to evaluate the project. I think this was a problem which faced the external evaluation team in 1991 also. They did not have a clear idea about the objectives. . . However when we planned phase 2 the objectives became much clearer and we also worked out the indicators of the objectives. . . then we ran another workshop with cell coordinators and principals and asked them what they thought the objectives of the PSDP work were. They did not know. They knew the activities but not the objectives.. So then we did some exercises with them on the blackboard and on sheets of paper, like we did at the original workshop, asking them to relate indicators to objectives. I told them they cannot have an objective without an indicator. We know that in Stockholm they go by results. . . therefore we are very much concerned about producing results.. therefore we try to see if there is an impact. We have a baseline and compare with the impact data.

A cell coordinator also stressed shifts in thinking about the purpose and practice of monitoring and evaluation over time and attributed some of this to the experience of “accountability” and having to make “adjustments”.

monitoring and evaluation is important because it helps you to know your objectives very clearly. We can work in a planned manner and know what one is moving towards. In phase 1 we did not always do things in a planned manner. We just thought we could do wonders. . . but then we had to make a lot of adjustments. It makes us think sharply and scientifically and to review our work in a manner which is scientific. In the ministry there is little accountability. If you cannot keep up with your target no-one is much bothered. But here in the project there is accountability. There is also recognition for good performance. It creates stress of course, but then commitment is also there.

Are monitoring and evaluation different?

Some writers suggest that monitoring and evaluation are two aspects of the same activity (eg Casley and Kumar 1988). The early terms of reference from SIDA for the BIRDP and several of the TOR for consultants ran the terms together as if they were part of the same activity. And in the early years of the projects the terms did seem to be used either synonymously or together. Over time however, and as described in chapter 2, the terms gradually took on separate meanings and came to be associated with different sets of responsibilities within the projects. Training workshops emphasised the different nature of the practice of monitoring and evaluation. How did the project implementors, in 1994, perceive the difference?

One assistant director expressed the distinction between monitoring and evaluation pithily

monitoring makes us check our activities. . . . evaluation helps us see how many of our targeted objectives have been reached

This point was reinforced in similar language by several others

monitoring is the regulation of activities, keeping to activity targets. Evaluation is long term .. it takes times

monitoring is looking at the proper implementation of activities, evaluation is done through objectives. Its purpose is to take decisions

in evaluation we take the figures and compare the past with the present. In monitoring we are looking at the present only and looking for ways to be more efficient

An extremely thoughtful analysis by another project director, in discussion with one his teacher educators, reinforced the point, deepening it considerably

evaluation assesses the level of desired outcomes or objectives of the plan in terms of outputs, effects and impact in comparison with the level at the beginning (the baseline) of implementation. . . . except in the case of formative evaluation where the results are used for assessment and appraisal. Monitoring, on the other hand, assesses the progress of the programmes, projects and activities built into the plan to arrive at the set objectives. Monitoring provides results for corrective measures and assures the occurrence of the planned activities. But there is an overlap between types of evaluation – baseline evaluation, formative evaluation, summative evaluation. And there is internal and external evaluation. And the scope of evaluation can vary, from appraisal to assessment to full scale evaluation. But in all cases a statement of objectives is a must.

In monitoring a clear statement of objectives is not necessary. . . but a clear statement of activity targets is. Monitoring is continuous, on the job and periodical. The techniques of monitoring include progress charts, designed with clearly stated achievement targets, shown in quantitative form; school and classroom supervision activity; and physical and resource progress shown in relation to time. Monitoring helps us to keep our eyes on the future in relation to targets rather than dabbling around with this and that. Evaluation is done from the beneficiary's point of view.. we need to know the outcomes for the child. . . what was the child's participation in school? what did the child learn? But in monitoring we are more interested in the implementation point of view. . . . how much progress have we achieved activity-wise?

It may be significant that all the above responses were offered by those in a position in the implementation hierarchy close to the top i.e. project director, assistant project director or persons with responsibility for collecting and reporting evaluation data. Their roles demand an overview of the project as a whole and a responsibility for organising a range of activities designed to lead to the achievement of the objectives. Those responsible for specific projects, or clusters of activities nearer the ground, each of which may be only one of several designed to achieve a broad programme or plan objective, were more likely to see monitoring and evaluation running into each other, as two phases of the same cycle of events, both pitched at the level of activity rather than broad objective

formative evaluation is really like very good monitoring

when I supervise or monitor classrooms I am evaluating the work of the individual teacher or child. I see what is happening but I also make judgements and give advice to the teacher

An example of the fusion of the ideas at the level of activity is offered by the MIRDIP. Since 1993 the planning of in-service training seminars has been undertaken in relation to objectives, which in turn has facilitated the process of monitoring the seminar

when we conduct a seminar we first identify the objectives and then identify the activities so as to achieve the objectives. Then we prepare the time schedule for the activities and recheck with the objective. After identifying the activities it's easy to monitor the seminar. . . . hence it helps us to perform the job better

To a large extent then the definitions of monitoring and evaluation have been internalised by those responsible for overseeing that this work is done and also by those responsible for doing. While the distinctions are clearly not watertight, they have been useful in forging the organisation of distinct sets of data collection, reports and discussions. The monthly, quarterly and annual collection and reporting of data on the number of teachers participating in inservice training, the rate of progress on buildings and furniture distribution and the number of classroom supervisions undertaken are clearly important for internal project management purposes. They identify shortfalls and constraints and generate discussion and decisions at different levels of the implementation hierarchy about ways of maintaining or accelerating progress.

But all these activities are but pieces in the overall jigsaw which need to be fitted together before they contribute to the development of a broad objective. The achievement or not of the broad objective can only be assessed over a period of time and through a "before" and "after" comparison. The data required for evaluation are different, and their manipulation more complex. This is especially true of summative or impact evaluation, but true also of formative evaluation. In other words the emphasis of the difference between monitoring and evaluation has been pragmatic and has facilitated the collection of different types of information by different, albeit overlapping, sets of people at different times within the project implementation cycle.

Language

Which language is used to express and think about the ideas and concepts of monitoring and evaluation? Innovations in education which involve actors from several cultures and languages generate new practices, accompanied by new concepts and language. The ideas and distinctions above were presented to and discussed with the author in English. But English is still the language of a minority in Sri Lanka. Students learn in their mother tongue, either Sinhala or Tamil, and the language of government service is Sinhala or Tamil.

Most of the monitoring and evaluation activity in the projects is undertaken through either Sinhala or Tamil. Sinhala is the main language used within the PSDP and MIRDIP. Tamil is the main language used within the PSEDIP. Both Sinhala and Tamil are used in BIRDIP and AIRDIP. While most officers speak good English, sometimes communicating with each other in English in preference to either Tamil or Sinhala, some of the teacher educators in the implementation cells speak little or no English. Principals and teachers always work in either Sinhala or Tamil. Only a limited number are able to communicate in English when necessary. Rural Tamil teachers are more likely than rural Sinhala teachers to be able to communicate in English. And Tamil teachers generally are more

likely to understand and communicate in Sinhala than are Sinhala teachers in Tamil. A small number of officers and teachers are tri-lingual.

This language complexity is taken for granted in Sri Lanka and communication often flows in a mix of all three languages, especially between personnel at the upper end of the implementation hierarchy. But when communication involves personnel with a facility in one language only, then problems and misunderstandings arise, especially when an innovation, idea or concept has been introduced initially in the language of English.

Hence a question about one's language of thought when working with the concepts of monitoring and evaluation was greeted with some surprise by those who were tri-lingual or had considerable command of the English language. By contrast, those less proficient in English greeted the question with a sense of relief and opportunity to discuss a "problem". The language of discussion about monitoring and evaluation is complicated further in SIDA-supported projects by the Swedish language, its use within SIDA Stockholm and between Stockholm and the DCO. The volume of SIDA documentation on guidelines on project preparation, monitoring and evaluation available in English is meagre.

MONITORING AND EVALUATION: SINHALA AND TAMIL TERMS

The introduction of systems for monitoring and internal evaluation has been led by foreign consultants working with Sri Lankans in through the medium of English, with the exception of work on financial monitoring which has involved Sinhalese consultants, writing in English. The language at in-service seminars for the officers and teacher educators located at the top of the implementation structure has employed a mix of all three languages, Sinhala and Tamil being employed especially in group work and sometimes in report back from group work. In-service training seminars for teachers and principals are generally run by officers from the projects. The composition of participants determines whether one or both of the vernacular languages is used. The formats used for data collection at the school level are presented in either Sinhala or Tamil, sometimes with English key words ("it is important to keep the English in because there are foreigners who visit the projects"). Formats are sometimes developed first in English then translated from English to Sinhala or Tamil; sometimes in Sinhala or Tamil and translated subsequently to English. The technique of "backtranslation" between languages (Brislin, Lonner and Thorndike 1973) has never been used systematically. Quarterly and annual review meetings which involve SIDA staff are conducted in English with officers or teacher educators using Sinhala or Tamil only when English is not an option. Monthly monitoring review meetings are run in Sinhala and/or Tamil depending on those present.

While data collection formats for use at the school level are available in either Tamil or Sinhala, guidelines on the procedures of monitoring and evaluation, and indeed the project plans themselves are rarely available in Sinhala or Tamil; only English. A notable exception was the translation into Sinhala from English of an evaluation manual (Little and Sivagnanam 1992) for use by staff in the PSDP project cells. Only a very small number (c. 50) were produced.

Questions asked by this author about the terms used in Sinhala and Tamil for monitoring

and evaluation were revealing. In one or two cases the staff who worked fluently in English were slightly surprised by the question, calling in junior staff to help them answer the question.

There was a high degree of agreement over the translation of terms from the English, though several commented that finding the correct technical translation was not easy. Moreover consensus over translation and meaning appeared higher for evaluation than for monitoring. Three possible translations for the Sinhala term for 'monitoring' were produced, each with slightly different connotations. The first was **මෙහෙයවීම** (meheeye-wime) which has several connotations in English – directing, piloting, leading, coaching, guiding, manoeuvring. Two other terms, **සුපරීක්ෂණය** (supereeksheneye) and **නියම කිරීම** (niyamu kereneye) were also used but both of these carry with them the connotation of supervising, and might be used in the context of classroom supervision rather than in the supervision of a programme with several components.

In Tamil too a commonly used term was **கண்காணிப்பு** (kankanipu), which shares its root and meaning with the noun ‘kangani’. The kangani is the supervisor who checks and controls estate labour through strict observation and time keeping, in order to meet leaf plucking targets. Not all agreed that this was the best translation however. Some felt that **செய்ப்பாடு** (seypaadu) offered a better translation, meaning continuous checking *over a period of time* rather than a one-off observation.

The terms employed for evaluation achieved a greater degree of consensus. In Sinhala the term **මගීයම්පේ** (aegeyime attracted unanimous support. It is a term used widely in education settings, especially by teachers when assessing a student's achievement. In Tamil there was wide agreement that the relevant term was **மதிப்பீடு** (madipedu).

Some staff working at the district cell level under a national coordination unit felt that insufficient attention had been given to the question of language by tri-lingual officers working at the national level. The issue has been acute for only one or two of the cell coordinators, most of whom can work in English when necessary. But it has been acute for a number of the teacher educators when required to work at the inter-face between a vernacular-dominated and English-dominated culture. For example, in one of the programmes the monthly monitoring form was designed and sent to the districts in English, untranslated. Some teacher educators

are unable to grasp it all and certainly cannot write their *reasons for underachievement* in English. ... so now I am having to ask them to write up their reasons in Tamil and I shall have to translate them into English. But that means a lot more work for me. Also they have a lot of difficulty at workshops when some of the concepts are discussed only in English. When you look into something in the mother tongue then you grasp it at once..

Views on the importance of spending time on translation and discussion about meanings of terms varied. While some personnel at the lower levels clearly would appreciate greater attention given to the issue of translation and sensitivity those in a position to do something about the situation were less inclined to perceive the situation as a problem.

I think in English about these things. People (i.e. teacher educators) have found fault with me for using the English terms, for example ‘dropout’, but I say its a technical term, like a medical term. We don't translate medical terms because we do not have the words for them. I say ‘‘what's the big idea in trying to coin a language’’.

Conclusion

This chapter has examined the ideas and perceived purpose of monitoring and evaluation as expressed by practitioners. It has explored the distinctions they make, as well as the perceived similarities and differences between their present and earlier monitoring and evaluation practice. To a large extent the distinctions drawn by the project implementors reflect those drawn by Plomp, Huijsman and Kluyfhout (1989). For the latter, monitoring is a system which requires the regular collection of data, an evaluation of that information and an impact of that information on institutional or project action. Monitoring is always an internal project activity. By contrast, project evaluation examines the impact of a project, the fulfillment of project objectives and an indication of the reasons for unusually high or low performance. Internal project evaluation “comes close to monitoring, but it differs from it in the sense that it is often a one time activity and does not have a system for regular data collection” (Plomp et al 1992:67). The Sri Lankan projects deviated from this idea a little in that an attempt was made to collect data for internal project evaluation on a regular, if infrequent, basis. These data overlapped with, but also differed in important respects from, the data required for the monitoring of individual project activities.

The issue of language in the practice of monitoring and evaluation generated a divergence of view. The incorporation of English terms into Tamil and Sinhala was perceived as non-problematic by those proficient in the English language; but as problematic by those less proficient. It is an issue which this author feels was overlooked in the day to day process of project implementation.

CHAPTER 4

Monitoring in Practice

Abstract ideas about monitoring and evaluation, expressed in a non-native language are one thing. Accounts and examples of monitoring and evaluation in practice are another. In this chapter accounts of recent practices in monitoring and evaluation are provided by project implementors, along with specific examples of monitoring and evaluation activities reconstructed by the implementor and the author.

The development of a monitoring system

The establishment of a *coordinated system* for the monitoring of the progress of activities at a number of different levels of the implementation structure has taken time to evolve but is now in place in all but the recently established AIRDP. Such a coordinated system is to be distinguished from *ad hoc* monitoring of discrete activities. The constant elements of that coordinated system are the quarterly and annual review meetings and the monitoring reports prepared prior to the meetings. Monthly meetings are held between the directors of the national-level programmes and their respective cell coordinators. In the district level programmes monthly meetings are held with officers and teacher educators to monitor progress and are run by the district level officer in charge.

One of the differences between the national and district-level programmes is the absence of direct contact between members of the SIDA annual review team and the district level officers responsible for the education components of the IRDP programmes. A wide variety of monitoring formats are used in these different fora, a few examples of which are presented below.

Figure 5 is extracted from the 1993 annual performance report of the PSDP and prepared at the Ministry level with the benefit of a microcomputer. The extracted page refers to the first programme in the plan – Quality Improvement in Formal Education: Training of Personnel – and to 13 distinct activities within that particular programme. Note the distinction between targets and achievements, and between physical and financial targets. The separation of targets from achievements took time to emerge as standard practice in both the annual and quarterly reports.

It may be contrasted with the earliest practice in BIRDIP in which activities were described and performance noted (Figure 6). Figure 6 presents a page from the first quarterly report from the BIRDIP for the period 1.1.84–31.3.84. Note that under the programme titled Quality Improvement in Formal Education, activity (iv) is “training and orientation”. The performance comments note the numbers of teachers who attended a course but not the numbers of teachers invited to participate. Although the project implementors may know the difference between the target numbers and the actual numbers this layout does not enable them to communicate the difference to those not involved directly to judge whether performance is in line with expectations or not. Nor

was financial monitoring data available in the first report. The officer in charge of the education component developed the layout of the quarterly reports alone with guidance from neither the IRDP management structure nor the SIDA-DCO.

Figure 5 Extract from PSDP Annual Progress Monitoring Report, 1993

PROG-RAMME	ACTIVITY	PHYSICAL		FINANCIAL	
		TARGET	ACHIEVEMENT	TARGET Rs.	ACHIEVEMENT Rs.
PROG. I.	QUALITY IMPROVMENT IN FORMAL EDUCATION (TRAINING OF PERSONNEL)				
I.1.1	Discussion Seminars	150 Participits.	141	80,000.00	57,474.00
I.1.3	Induction Course for New Teachers	160 Teachers	148	120,000.00	81,212.75
I.1.4	Training of Lower Primary Teachers	172 "	151	250,000.00	232,319.00
I.1.5	Training of Upper Primary Teachers	154 "	139	250,000.00	169,529.20
I.1.8	Health Training	200 Prips & Trs	172	75,000.00	93,811.00
I.1.9	INSET for Principals	75 Principals	71	1,000,000.00	69,319.16
I.1.11	Follow-up Seminars	100 Participits	84	140,000.00	101,952.98
I.1.12	Teacher Visits	133 Schools	108	70,000.00	46,697.74
I.3.1	Workshop on Supervisors	125 Participits.	120	60,000.00	59,731.00
I.4.1	Seminars for Parents	625 "	532	48,000.00	19,588.15
I.4.2	Opening of Childrens Parks	125	91	40,000.00	34,725.00
I.5.1	Organizing of School Families	125 Schools	125	75,000.00	49,015.80
I.6.2	School Health Clinics	125 Schools	125	24,000.00	13,580.40

Figure 6 Extract from Quarterly Progress Report BIRDP 1984

BIRDP-ES PERFORMANCE PROFILE		
PROGRAMME	ACTIVITY	PERFORMANCE
1. Quality Improvement in Formal Education	1. Production of existing material	1. Procurred and distributed available material from CDC to schools in the Project Area. 2. Called for quotations for printing and selected tenderer.
	2. Compilation of Kits	1. Quotations called from MPCs: Bandarawela due to the high prices quoted by firms given in the PFC Report.
	3. Design of Supplementary Material	1. Applications from prospective Resource persons called and processed.
	4. Training and Orientation	1. Orientation of New Teachers completed Hahela 12.03.84 - 17.03.84. 63 Teachers followed course. 2. Inservice Training for Lower and Upper Primary Teachers - Kandegdera-M.V. 27.03.84 - 2.04.84. 53 Teachers followed course.
	5. Formal Sub-Committee Meeting	1. Held 2 meetings.
2. Quality Improvement in Non Formal Education	1. Expansion of TEUU	1. Recommended 10 schools for recognition by Ministry of Education.
	2. Survey of 1984 Graduates	1. Preliminary work undertaken through AEO and CEOO
3. Physical Needs	1. Construction of New Buildings and Repairs	1. Tenders called for all schools listed for work during the first year in the PFC Report.

The nature of the reporting was to change over time, but only slowly. Figure 7 illustrates some of these changes with respect to the reporting of the same activity, training workshops for teachers. The reader may like to consider the types of information which may or may not be inferred from the alternative formats for monitoring the same activity.

Note that in the 1984 report we are told when two courses were held and how many participated. We do not know how many courses were planned and how many held; nor how many teachers were expected to attend compared with the numbers who did attend. One year later we are presented with similar information, disaggregated this time between Sinhala and Tamil teachers. Three years later and the information is a little more detailed. We know that some courses were planned for the quarter but were not held and we know how many Sinhala and how many Tamil teachers attended one course. But we still do not know how many teachers were expected to attend any of the three courses listed. Only the 1988 report refers to a targets. However it is interesting to note that the term “target” in the 1988 report is interpreted as a time-target rather than performance target.

Compare these styles of reporting with a page from the BIRDP progress report for 1993 (Figure 8). Note the reference to the number of teachers expected for training, the numbers who participated, the percentage performance and, for the training component as whole, the financial allocation, actual expenditure and percentage financial performance.

Quarterly monitoring: the domination of buildings

The monitoring of progress of buildings was always more regular and systematic than the reporting of other types of activity. Monitoring formats for buildings were supported well-established routines in both the IRDP programmes and normal Ministry School Works Branch. The rough milestones on progress – agreement signed, walls built up to roof level, roof covered and work completed – helped to indicate the stages reached, the stages to be completed and the financial position.

In the early days monitoring meetings were dominated by the physical and financial progress of buildings. When other activities were discussed the discussion tended to revolve around financial rather than physical progress. Little time was devoted to the serious discussion of implementation and management bottlenecks in the non-buildings programmes. One who was involved in those early meetings recalled

the IRDP were not interested in education development as such. We were never asked to give the enrolment figures, only the financial targets and achievements, especially for buildings

One may understand the dilemmas of those responsible for drawing the agenda for such meetings given the volume of accountable funds being spent on buildings. How can the quality aspects of education be taken seriously when they cost so little? How can quality be discussed meaningfully when so few of those called to the meetings have much to contribute to this question (“one cannot expect the engineers to sit through those discussions and most of the officers called know little about primary education”). How does one cover the buildings question adequately when they cost so much?

Figure 7 Extracts from BIRDP Quarterly Monitoring reports, 1984, 1985, 1988

BIRDP-ES PERFORMANCE PROFILE		
PROGRAMME	ACTIVITY	PERFORMANCE
I. Quality Improvment in Formal Education	1. Production of existing material	1. Procurred and distributed available material from CDC to schools in the Project Area. 2. Called for quotations for printing and selected tenderer.
	2. Complication of Kits	1. Quotations called from MPCs: Bandarawela due to the high prices quoted by firms given in the PFC Report.
	3. Design of Supplementary Material	1. Applications from prospective Resource persons called and processed.
	4. Training and Orientation	1. Orientation of New Teachers completed Haliela 12.03.84-17.03.84. 63 Teachers followed course. 2. Inservice Training for Lower and Upper Primary Teachers – Kandegdera-M.V. 27.03.84-2.04.84. 53 Teachers followed course.
	5. Formal Sub-Committee Meeting	1. Held 2 meetings.

January to March 1985	
Project III Item 1: <i>Training of Teachers</i>	<i>The following training programmes have been undertaken and completed dun 1st quarter:</i> <i>Year 1 Teachers in Viyaluwa and Passara</i> <i>Two sessions 52 (s) 40 (T) 92</i> <i>Year 4 Teachers in Viyaluwa and Passara</i> <i>49 (s) 41 (T) 90</i> <i>Orientation of appointed Tamil Teachers 36 Teachers in Passara (SIDA Grant aides)</i>

January–March 1988

	ACTIVITY	TARGET	ACHEIVEMENTS	REMARKS
I II I A	3 day Enrichment Course for Lower Primary Teachers	Feb–April	Completed in Febuary. 78 Sinhala and 41 Tamil teachers followed the course.	
I II I B	3 day Enrichment Course for Upper Primary Teachers in Viyaluwa & Passara		February	Completed in February and March. 75 Sinhala and 39 Tamil teachers followed the course.
I C	5 day Training of Teachers in Health, Nutrition & Agriculture	February		Dates to be fixed.
2A	Orientation of Principals – 1 day contact	February		Dates to be fixed.
2B	Participation of CEOO in In-service programme	January–June	Done with the Lower and Upper Primary In services programmes.	

Figure 8 Extract from BIRDP Annual Monitoring Report, 1993

PROFESSIONAL DEVELOPMENT OF TEACHERS - IN SERVICE PROGRAMMES - 1993									
S N	COURSE	DATE	PARTICIPATION	ALLOCATION					
		NO. OF SE SS	DATE	No. Expected	No. Participated	%	ALLOCA- TION	EXPENDI- TURE	%
01	One day workshop for Year 4 teachers on Learning Skill Development	S-08 T-04 12	93.03.01 93.03.19	S 240 T 125	238 118	99 % 94 %	396,622/=	394,162.30	
					97 %		99,37		
02	One day workshop for Year 3 trs on Organization of Learning Activities	S-08 T-04 12	93.05.20 93-06-07	S 268 T 126	257 112	96 % 89 %			
						92 %			
03	Teacher visits - one day workshop	S-09 T-04 13		S 120 T 50	99 38	82.5 % 76.0 %			
						79 %			
04	One day workshop for Year 1 trs on Self Evaluation of Professional Development	S-09 T-06 15	93.11.01 93.11.04	S 479 T 191	428 175	89.35 % 91.62 %			
						90,48			
05	One day workshop Beginning Sc. Teachers	S-04 T-03	93.11.22 93.11.26	S 121 T 42	66 38	54.54 % 92.68 %			
						73.6 %			

In a review of reporting systems (as distinct from reporting meetings) in the PSEDP and PSDP programmes, the Sri Lankan accountancy consultants were to comment on the inadequacy of the reporting of the development of infrastructure work. They claim

in these reports details are insufficient for infrastructure development which constitutes almost 90% of the project funds whereas a detailed classification under more than 20 headings in PSDP and 40 headings in PSEDP, is given for the balance 10% of expenditure (Jayaweera 1991:11)

At the same time the Swedish consultant who worked with PSEDP full-time over two years within the Ministry was to call repeatedly for a reporting system which was based less on expenditure and more on activities and problem resolution

the satisfaction of the needs of both the parties (SIDA and MOE) calls for a more comprehensive, activity based and problem related form of reporting than the present one and less of the current achievement by expenditure kind of reporting

This author was to agree, convinced that there was no intrinsic relation between the project cost of an activity and the time spent in finding solutions to problems associated with it. New buildings paid for entirely by project funds are more expensive items than training teachers whose salaries are already paid. But the quality of learning experience enjoyed by children in those buildings is dependent to a large degree on the training of the teachers.

Activity monitoring, problem diagnosis and negotiated solutions are vital at some levels of decision making and planning eg at the annual review, quarterly review and monthly review. Although relatively small amounts of money are spent on quality development, the human organisational problems associated with the successful execution and sustainability are far greater than those associated with a successful buildings programmes. . . the format of monitoring forms and hence the form of dialogue at these meetings are critical for the way activities are valued or devalued, for the way. . . committee discussions proceed and. . . the way. . . decisions are taken,

(Little 1992).

Clearly however the issue is not buildings *or* non-buildings activity, financial progress *or* activity progress, reporting *or* problem diagnosis. All types of monitoring are important and the continuing challenge faced in these primary education programmes has been the creation of an adequate amount of managerial space and time to discuss the solution of all types of problem, especially those which impede several activities simultaneously. For example, disputes at the district or provincial level over control of the project vehicle can seriously impede planned school visits, supervision of teachers, delivery of materials and equipment and undermine the ethos of monthly and weekly work plans. Planning thrives in contexts where resources can be relied on with a degree of certainty. When access to resources becomes uncertain the incentive to plan wanes.

New tiers of reporting

Apart from monthly, quarterly and annual review meetings, project staff are requested to participate in a number of other meetings. Project directors find themselves requesting information from those below and having information requested from them by those above. Moreover, there is now a degree of coordination in the timing of these meetings such that the third monthly meeting precedes the first quarterly review meeting. A simplified scheme of the tiers of meetings designed to monitor progress in PSDP, current in 1991, was provided by the project director (Figure 9).

The establishment of a system of monitoring

The director of the PSED P was to comment in 1994

in the beginning there were difficulties.. for one thing we had to give constant reminders to send the monthly reports.. now we have a system.. we tell them that before this date we should receive those reports here. Also in the beginning the reporting format were not very clear.. forms must be self explanatory. And when, for example, the over or under spill is sizable that should be explained clearly. Although the project started in 1986 it was not really until 1992 that this settled down into a system.

Two project coordinators working below him seem to agree that there is now a system and that it works

we have monthly meetings in the cell and then we have the quarterly meeting with the PDs and SIDA. We have the targets, the achievements, and if there is underachievement we have to give valid reasons and explanations and then decide who is to take responsibility for follow up action. Sometimes it's us, sometimes the PD, sometimes SIDA.

we have an activity based plan. It helps us do our job better. . . no, it is not a hindrance. It comes

up at the quarterly review meetings. Even last time we had an example of what and what furniture had arrived in the schools.. We even received a letter from a principal who had written to the provincial council member complaining. I had to explain the situation to my director.

In one of the district level programmes the officer responsible for monitoring and evaluation described its value in keeping the teacher educators on track

the single most important thing which monitoring helps me do is to study activities in relation to the plan, identify constraints and adopt alternative methods. A good example is school supervision. When we monitor we can see that some schools have been visited frequently, some infrequently .. we tell the teacher educators to visit other schools. Another example was that we found that on weekdays the parents were not attending the school development society meetings very well, so we changed to weekend meetings

But a number of difficulties have been experienced in making the monitoring system work. The project implementors speak volumes on the problems of generating and handling the data for both financial and activity monitoring sometimes it is exasperating when the data do not come in

sometime telephones do not work. ... there is no telephone in Moneragala

there's a problem with the financial monitoring because there are different practices in different provinces. For example in Uwa province the money for activities goes out to the Divisional Offices. In Central province it's the provincial office. Then that is where we have to go for monitoring information

in the projects we may now understand the monitoring procedure but when we try to involve the divisional offices in the districts in our activities in the interests of sustainability and getting the whole district involved it is sometimes very difficult for them to understand our monitoring procedure because they are not used to it.

Figure 9 Hierarchy of Monitoring Fora, PSDP c. 1991

Name of Meeting	Frequency	Participants										
		Ministry Finance Staff	Line Ministry Secretaries	SIDA HQ	SIDO DCO	MOE Secretary	MOE Staff	Provincial Director	NIU Director	NIU Staff	Cell Co-ordinator	Cell staff
Development Secretaries	Monthly	x	x			x	x		x			
Technical	Monthly					x	x	x	x			
SIDA/MOE Annual Review	Annual			x	x	x	x		x	x		
SIDA/MOE Quarterly Review	Quarterly				x		x		x	x	x	x
NIU	Monthly								x	x		
Cell	Weekly										x	x
Cell and Schools	various										x	x

Jayeweera's (1991) careful analysis of work, information and money flow within PSED and PSDP outlined a number of difficulties faced by project staff in financial reporting. Though written in 1991 many of the difficulties faced then remain and are presented, in slightly adapted form, below

the government accounting system is not geared to accounting for development projects

the submission of final reports by the Ministry is delayed due to the large volume of work that is being handled manually

quarterly reports do not have in-built measures to check accuracy

the main source of information for the quarterly reports is the accountants records, requiring additional work by way of analysis to prepare the report

the status of the project as at a given point in time is not reported by way of a statement giving the total funds invested and how these funds have been utilised

reports are not generated as an automatic outcome of a reporting system

work performed but not paid for is not reported for the period in which work was performed

there are no registers or other records through which one can get an overall summary of the activities undertaken

(adapted from Jayeweera 1991: 14)

From quarterly monitoring to annual review

From a project director's viewpoint the main challenge in running a project is the management of a wide range of individual activities through individuals or teams of individuals. For a new project director, especially one who has not been involved centrally in the planning and design of the plan, the task can appear overwhelming. The reporting of work achieved in a set period is thus of secondary importance. One cannot report on work achieved until one has set in place the mechanisms for getting work done. The completion of quarterly monitoring reports, in itself an activity unfamiliar to lower level officers in the Ministry of Education, is a major achievement in itself.

The first experience of an annual review is an unfamiliar and daunting experience for an officer in the Ministry of Education. Unlike the quarterly review where all but the DCO officer are Sri Lankan "insiders", who understand implicitly the culture within which a programme is operating, the annual review involves usually at least two high status outsiders with limited knowledge of the history and development of the programmes. They have little time to observe any of the programmes on the ground. They must rely on what they read and what they hear. Outside reviewers require instant and neatly packaged information about programmes – their objectives, their achievements set against targets, their problems, their possibilities. They want to understand and "feel" something of the "quality" aspects of the programmes, but without visiting the field.

There is something of a paradox here. Those without experience of the project from within (the outsiders) have little time to learn. What they want to know is whether the programme as a whole is having a tangible impact. They have a strong urge to know but too little time for learning. By contrast, those with experience of the project from within (the insiders) have already accumulated a stock of shared and taken-for-granted knowledge. They are involved in discrete elements of the work on a daily basis and do not share the urge to know whether the totality of inputs is "making a difference". The outsider's urge to learn about impact in an unfamiliar context constrained by lack of time often leads to a sense of "cultural isolation" leading to the creation of

simple, sometimes oversimple, evaluation indicators. ... (created) perhaps less out of a need to evaluate, and more out of a need for the "expert" to feel some sense of contact with and control over an incomprehensible reality

(Little 1992)

Recent attempts to package impact information

The annual review reports from the different projects vary enormously in length, quality, organisation and physical quality. The use of microcomputers in some of the projects has made a noticeable difference to the quality and digestibility of information. There is also a tendency over time to produce more of the “impact” type data in the same report as the progress monitoring data. The most impressive annual review report in this respect is the BIRDP 1993 progress review. We saw earlier in Figure 8 an extract of progress monitoring from this report with respect to the cluster of activities named the “Professional Development of Teachers”. In the same report, a limited amount of “indicator” information is presented on enrolment, enrolment growth, repeaters, schools leavers, average attendance, number of teachers, teacher:pupil ratio, dropouts and dropout rate.

Figure 10 presents the data presented for dropout rates in the plantation sector schools between 1989 and 1992. The data are presented by AGA division, as well for the district as a whole, for boys and girls separately as well as together. The double vertical line indicates the year in which phase 3 of the plan started i.e. 1992. Although the report was finalised in January 1994, data for 1993 are unavailable since 1993 dropout data can only be collected some weeks after the start of the 1994 school year in January 1994. The time series has the distinct advantage of having included data from the three years prior to the intervention and the inclusion of control group schools over the same period of time.

As projects develop and as the experiences of project implementors grow, then the progress of the project as a whole, as expressed by the indicators which purport to measure its objectives, is taken on board as a matter for report alongside the detail of the progress of individual activities. In a sense this is where monitoring flows into evaluation. As a teacher educator from one of the national-level projects noted

the purpose of evaluation is to take decisions.. and evaluation is done through objectives. Monitoring is looking at the proper implementation of activities. And then there is formative evaluation. That is really like doing a very good monitoring. At the end of one year one can collect the data on the indicators and then give a feedback.. and then at the end you do an impact evaluation.

The BIRDP has begun to include in its annual reports information which gives some indication of progress towards meeting objectives as well as progress on activity plans, information which can, *in principle* be used for formative evaluation purposes. I say, *in principle*, because the current practice of presentation is “cold” and not *reader-friendly*. To date no attempt has been made by the authors of the annual review reports to *interpret* the indicator data for the reader.

Look again at Figure 10 and ask the following questions of the table of data.

are the same schools being compared over time?

how many schools are being compared over time?

what do the blank spaces for Mahiyangana and the “O”s for Meegahakiula Division mean?

is there an increase or decrease of the dropout rate over time, in the district as a whole, and in each individual division?

what is the pattern of dropout as between boys and girls?

Figure 10 Drop-out Rates 1989–1992, BIRDP Annual Progress Report 1993

DROPOUTS RATE												
EDUCATIONAL Division	1989			1990			1991			1992		
	M	F	T	M	F	T	M	F	T	M	F	T
BADULLA	2.099	2.968	2.521	3.167	3.302	3.232	2.671	2.876	2.773	2.105	1.609	1.811
BANDARAWELA	2.387	2.767	2.582	3.652	2.160	2.839	2.656	2.275	2.455	0.722	1.956	1.353
ELLA	1.150	1.351	1.237	1.583	0.758	1.216	1.219	1.646	1.410	2.356	3.078	2.686
HALDUMMULLA	3.837	6.197	4.898	5.037	3.964	4.543	3.880	3.738	3.813	3.997	4.409	4.191
HALI ELA	1.640	1.472	1.563	2.682	2.880	2.772	1.745	2.008	1.867	1.940	2.237	2.080
HAPUTALE	1.274	2.258	1.743	4.192	4.243	4.216	1.651	2.546	2.073	2.424	2.300	2.366
MAHIYANGANA	0									5.681	2.512	
MEEGAKIULA	0.995	0.657	0.849	10.39	9.756	10.10	0	0	0	0	0	0
PASSARA	2.904	2.870	2.889	4.551	3.502	4.031	2.553	2.319	2.451	3.590	2.653	3.151
SORANATOTA	1.886	1.781	1.839	8.008	6.209	7.191	2.213	2.577	2.372	2.057	1.078	1.633
AUVA PARANAGAMA	2.021	1.475	1.775	2.018	3.231	2.569	2.723	0.890	1.868	0.683	1.052	0.859
WELIMADA	2.564	2.144	2.360	4.033	3.399	3.723	2.583	3.561	3.063	3.552	3.926	3.737
TOTAL	2.069	2.358	2.205	4.484	3.945	4.222	2.172	2.221	2.195	1.952	2.498	2.198
CONTROL SCHOOLS	4.404	5.095	4.714	5.386	5.105	5.263	5.882	6.25	6.045	4	5.614	4.733
M - MALE			F - FEMALE			T - TOTAL						

M – MALE

F – FEMALE

T – TOTAL

Interpretation of the data presented in Figure 10 would need to consider all the above questions, and more. It turns out that some data from the 1992 schools were missing and therefore the same schools within education divisions were not being compared over time. The numbers of schools in each division and in the control group should have been indicated since trends are more reliable when based on larger rather than smaller numbers of schools. Since the number of plantation schools varies from educational division to division with large numbers in Passara and small in Meegahakiula it is important to know numbers, especially when examining patterns between divisions. It is not clear what the blanks with respect to Mahiyangana mean. The “0’s” alongside Meegahakiula indicate missing data. Were one to accept the data at face value and consider change in the district as a whole then one might conclude that there appears to have been little change in the dropout rate, except in 1990 which stands out as showing an abnormally high rate. On the other hand the rates in the control schools also appear at these high and even higher levels every year. It is at this point that one would wish to return to the individual school level data and examine whether some of the fluctuations in rates over time arise from all the schools or only from a few.

The dropout pattern as between boys and girls is also intriguing. The aggregated figures suggest markedly higher rates among girls than among boys in the both the district and the control group schools, yet there are some divisions (eg Passara division), where the rates for boys appear higher than the rates for girls. Why? Is this difference common to most schools in the Passara division or is it created in aggregate by extreme differences

in a few schools only? More generally, one would like to know whether the trends over time are different in those divisions where, in phase 1 and 2 of the project, there was intensive school development compared with those in Phase 3 where the overall objectives of the project changed and where intensive school development has not been possible to the same extent.

Few of these points could have been appreciated by an outsider, for the simple reason that the presentation of the information is inadequate to the task. Yet the data are being presented for the benefit of the outsider. The data are incomplete, yet are expected to “speak for themselves”. They clearly cannot.

These comments are not intended to be read as criticism of current internal evaluation practice in BIRDP. Of all the programmes, BIRDP has travelled the farthest down the internal evaluation road to date. Those who have so travelled have also encountered the difficulties involved in the collection, analysis and interpretation of evaluation data. The teacher educators who produced these data worked under enormous pressure processing the school level data by hand. Only the division level data were inputted to computer on an informal basis outside the project. Although the microcomputer hardware and software have been available to the project for a year none of the staff has so far been trained to use them for data input and analysis. The interpretation of data generated by evaluation indicators is not straightforward and the education officers and teacher educators are still developing.

Outsiders often wish to see impact information presented simply. They want to receive a simple answer to the complex question “does the programme make a difference?”. The process of generating such information has a number of technical imperatives. The collection and interpretation of data by insiders for meaningful communication to outsiders requires time and skill. There are many technical imperatives involved in the task of interpreting “hard data” and much work must be done on “hard data” before it can be presented to an outside audience in a meaningful form. The practice of evaluation is a skilled process with many intellectual pitfalls. It is to this practice that we turn in the next chapter.

Conclusion

This chapter has examined the practice of monitoring and the development over time of a monitoring system as distinct from a series of discrete monitoring events. The extracts from monitoring reports demonstrate the progress which has been made over time in the quality and presentation of those reports and in the depth of information presented. A number of difficulties persist in the smooth functioning of the monitoring systems. The sheer range of type of activity in the programmes, stretching from erecting a classroom to mobilising parents to developing schemes for reading, creates strains in the monitoring system. In general though the quarterly review system appears to have settled into a well-established pattern and set of expectations shared by all who participate. The pattern is less regular and the expectations less clear in the case of the Annual Review.

At least one of the programmes is gearing itself to what it believes “outsiders” wish to know, i.e. information about “impact”. But as we saw, the expectation is difficult to meet in a satisfactory and meaningful way. Moreover, none of the insiders is sure whether the expectation is really there, or whether they are merely anticipating an expectation. The outsiders have, to date, been rather silent about what they expect. Nonetheless, as we shall see in the next chapter the development of the internal impact evaluation continues.

CHAPTER 5

Impact Evaluation in Practice

Comparing the difficulties faced by his staff in the practices of monitoring and evaluation one of the national-level project directors commented

evaluation needs more sophistication and organisation than monitoring. It cannot easily come.

And clearly some staff react to the work of evaluation more positively than others.

there are some, like Mrs T and Mr R, who rejoice in this work. . . yes I mean it from the bottom of my heart, they love it, they rejoice in it. . . whereas some others do it but leave the office promptly and are not really that interested.

The Purpose of Impact Evaluation

One of the constraints on the practice of evaluation, especially impact evaluation, is time. Impact cannot be assessed until two or three years after the inception of a project. In order to assess impact, baseline data are needed. Those who come to assume responsibilities for the collection of impact data were often not involved in the collection of baseline data themselves and have a tendency to dismiss its value for this reason. Conversely those who do collect baseline data often do not understand its longer term purpose, compromising sometimes the reliability or validity of the data.

Evaluation is frequently said to be important for decision-making about objectives and implementation strategies. This is certainly the advice which this author has communicated in training workshops and on-the-job training. And, as we saw in chapter 3, it is one of several ideas which both monitors and evaluators have internalised. However those involved in collecting data are often not involved in decision-making themselves.

One of the purposes of evaluation is to help make decisions. I am handling the evaluation data but I don't make decisions. My job is to work with the staff in the field and tell them about indicators

The element of time is also important in relation to the planning cycle. In the Baseline Study handbook published by SIDA's Evaluation Unit, Freudenthal and Narowe (1992:11) outline the full course of a project. In principle, impact evaluation occurs before a decision is taken about the prolongation of project support. In practice, however, these decisions have sometimes been taken in Sri Lanka in the absence of an impact evaluation. This has happened for a number of reasons eg. abbreviated project support cycles due to financial uncertainties in Sweden; too little time between the inception of implementation and an impact "end-date"; too little time between an impact end-date, data analysis, report completion, report discussion among relevant parties and time for considered decision-making about the direction and scope of future work.

PSEDP and PSDP provide good examples of the disjunction between the planning and evaluation cycles. In April 1994 PSEDP and PSDP submitted their proposals to SIDA for phase 3 of their projects, due to start July 1994. The impact evaluation of phase 2 covered the period June 1991 to June 1994. The impact evaluation was to be conducted

internally but the processing of data and the written reports were not ready for discussion until December 1994, by which time phase 3 had started. This means that the information generated by the internal evaluation exercise could not be used to change the definitions of project objectives for phase 3. These had been agreed already and had been used to decide in which activities to engage. At best the information was of value in helping project managers take decisions about improved implementation strategies.

The present situation in PSEDP and PSDP may be contrasted with the much closer match between the planning and evaluation cycles experienced in phase 1 of BIRDP, though this was achieved partly through default. The first phase, planned to cover three years 1984–1986, was in fact extended to June 1988. This meant that the external evaluation, conducted in February/March 1987 (Lofstedt, Caspersz and Laing 1987) could be considered and discussed by project managers at a series of meetings in which the national and foreign consultants were also involved in June 1987. The plans were to be ready for consideration by the annual review team by November 1987, which meant that there was still some time available between July and October to take the evaluation teams comments into account, especially in relation to objectives, and to conduct a degree of participative planning with school principals, teachers and school development societies.

Time is also important for those who plan internal evaluation work. No member of PSEDP, PSDP, MIRDP and BIRDP has yet experienced a full cycle of internal impact evaluation. No-one has yet experienced both the long term time planning of the full cycle or the short term time planning of each of the stages and sub-stages involved in the task. Estimates currently being made by those with little or no experience of the time it will take to analyse and interpret data, are possibly over-optimistic. Only time and experience will tell!

Time and Experience

At the risk of sounding banal, one cannot overestimate the role of trial and error learning in the process of capacity building. In-service training workshops and consultancy advice form an extremely important element in that process but staff need opportunities to try out ideas and learn from their mistakes before ideas and principles are well internalised. The following examples illustrate the point

we should have tried out the baseline achievement test. When marking the papers we noticed a difference between the Kandy papers and the other districts in the performance of the children on counting tasks. Then we looked again at the papers. In one district's paper the stimulus display was random; in the other two the display was in rows. Children in Kandy district where the row display had been used were finding the item easier. It showed up in the difficulty index. . . but in a way the information came too late.

eventually we learned the importance of sample surveys. Often a survey of all schools is just too big. It takes far too long to process and analyse the data. There's no point in having too much if the data are not used.

there's no point in having data if it is bogus data. . . but we must have a uniform system. We have to train principals in how to collect data. They must know when, where and how to collect and analyse data.

we have tried to compare out data on dropouts from phase 2 with the data from phase 1, but the work in phase 1 was not methodical. From 1990 the work has been more methodical. The principals really did not know how to calculate dropout rates. . . but now we have trained the principals to fill in data correctly. We do not expect them to do all the calculations, we do some of them. In the earlier formats we asked the principals to calculate their own teacher:pupil ratios. Some of them could not do it.

No amount or pre-experience training can substitute for some types of trial and error learning. But there is a price to be paid for the errors. Unreliable data, uncollected base-line data and irretreable and poor quality achievement test items compromise the value of data generated eventually for evaluation purposes. Studies and surveys can all too easily be dismissed by others when data reliability is criticised. When technical support is available errors can be minimised, provided that the support is sought out when necessary. But when all are learning together from a collectively low base – from project director to teacher educator to school principal – and when external consultancy advice is available only rarely – the errors accumulate and a full evaluation cycle may never be completed. There is also then the danger that the activity becomes a meaningless ritual, a set of actions to be undertaken because evaluation is included in the plan, but whose long term purpose – an aid to decision making – becomes lost in a series of short term actions, where errors lie undetected and uncorrected. Regular and frequent access to remedial advice is essential if short-term training programmes are to have lasting value.

Problems encountered

In chapter 2 the design of the impact evaluation was presented. And in chapter 1 (Figure 3) the programme objectives and associated indicators used in PSEDp phase 2 were set out. All projects plan via objectives. All objectives are linked with indicators. Data on the indicators are collected annually, or, in the case of complex indicators, at the beginning and the end of the project period.

During the course of implementing this evaluation work, a number of problems have arisen, been discussed and remedial action recommended. These relate variously to

awareness of objectives and indicators

evaluation design

data collection

data collation

data checking

data feedback

data analysis

data interpretation

It is impossible to list here all the problems encountered in the evaluation work and all the advice offered. A few of the problems which have arisen illustrate the realities of the exercise and the several stages of evaluation work which must be mastered before reliable and meaningful data on apparently simple indicators of apparently simple and straightforward objectives can be communicated to both insiders and outsiders.

Awareness of objectives and indicators

1. uncertainty about the range and definition of project objectives
2. uncertainty over which indicators relate to which objectives
3. a tendency to reduce objectives to the measured indicator and to focus activities on that specific indicator

Evaluation Design

4. lack of awareness of the purpose of a baseline or benchmark
5. collection of baseline data for some, not all evaluation indicators
6. rejection of control group data when scores are higher at the baseline stage; lack of awareness of the importance of comparisons between controls and project schools *over time*
7. lack of sensitivity to the fact that many factors can produce a result and that factors outside the control of the project implementors may be influencing activities in both the project and control schools

Data collection

8. principals and school teachers are expected to generate much of the school-level data from their records but some data collection formats are not "user friendly", or, as one colleague internalised the idea, "filler friendly"!
9. the basic records from which data are to be derived are often not well maintained
10. principals often do not return forms, sometimes through lack of understanding, time or interest
11. formats are not trialled before use
12. month in year for which data are collected (eg enrolment or achievement data) subject to variation

Data collation

13. responsibilities for the drawing together of data into one style and one place are not always clear
14. data formats for schools should ask only for that raw or collated data required from the schools. Further collation or transformations of data to be undertaken at a higher level should be conducted on fresh formats
15. data inconsistencies and lack of checking for obvious errors before entry to computer or entered for further manual analysis
16. data for different years are filed in written record books and computer files which are not always easy to put together for the purpose of comparison

Data Feedback

17. lack of awareness of the role and constraints of data feedback within impact evaluation exercises

Data Analysis

18. imperfect application of arithmetic operations such as growth rates, means, and erroneous reading of tables of figures.

19. willingness to see patterns of data which confirm expected trends; unwillingness to consider those which refute or challenge the expected; a tendency to dismiss the latter, but not the former, with comments on the unreliability of data collection methods, data collectors etc

Data Presentation and Interpretation

20. tables often contain imprecise headings, no “source notes” or indication of formulae used in calculations, making it difficult for others to work with the data presented

21. tables are presented within pages of text or as annexures, with little or no interpretation of trends or patterns etc

Learning Achievement Indicators

One indicator which has been used as a measure of learning quality consistently across the projects since the inception of BIRDP, has been performance of the same ‘year group’ of children over time on tests of first language and mathematics achievement. Students in year 4 have been tested in the baseline year, and again in the impact year, the gap between baseline and impact generally being three years. Hence, year 4 children in the baseline year would be compared with year 4 children in the impact year. The academic performance of year groups within the project area are compared with the same year groups schools outside the project area, both before and after the project intervention. Schools outside the project area are selected for their broad similarity with schools inside.

The administration of the tests has been generally well organised in all the projects and the testing conducted under “examination conditions”. While the mention of “examination conditions” may convey stress and anxiety to a Swedish or English reader, such conditions are likely to be perceived as less stressful, more routine, by a Sri Lankan reader. Most Sri Lankan children become accustomed to an examination-oriented culture of schooling from an early age.

Although the baseline and impact test in maths and language achievement within particular schools has always been the same test, there has been some variation across programme areas and time, due to gradual changes in the content of the primary school curriculum and changes in the personnel responsible for designing the tests. When this evaluation work began in the mid eighties, no national, standardised tests in language and mathematics were available. Consequently the basic tool of evaluation had to be designed *ab initio*. Scores from the various waves of testing are generally non comparable across projects and phases. Their main use is for evaluation between the baseline and impact years within schools and within a programme phase.

These achievement data are available within most of the programmes. In most the data have been analysed painstakingly, but only in a few have the analysis and reporting of the data reached a stage where the outside reader can begin to gain an understanding of the achievement performance of project schools. The PSEDP Hatton cell recently produced a detailed report from the impact evaluation for “2nd year project schools”

(Ragavan 1994). The “2nd year schools” are a group of 51 plantation schools falling within phase 1 of the overall PSEDP programme but incorporated into the programme only in the second year of phase 1 implementation. For the purpose of the evaluation a further 21 plantation schools were selected as “control schools”. These were drawn from the same district but from outside the project area and were unaffected by the project intervention during the period of the evaluation.

Achievement tests were administered in the project schools in November 1988 and again in November 1991 by teachers from other schools. Year 4 and Year 2 children were tested. The baseline test was administered in the control schools in March 1989 to the children who would have been in Year 4 and Year 2 in the previous November. The circumstances surrounding this time gap in testing require explanation. Towards the end of 1988 the civil disturbances in Sri Lanka reached a crescendo. Schools were closed on many occasions and travel was difficult. Although the testing was completed in the project controls the testing in the control schools had to wait until schools returned to a state of normality. In the calendar year 1989 the official school year was not regarded as having started until the month of March, when normally it would have started in January after the December vacation. These events were unusual. Nonetheless, great care was taken to test in March 1989 those children who would have been in Years 4 and 2 in the previous November, just before the end of the school year.

Great care was taken with the administration of the test. Teachers did not administer tests in their own schools. Rather, teachers were allocated by the project cell to other schools to administer the tests. These same teachers corrected answer scripts under supervision in line with a marking scheme, and submitted marks and completed scripts to the cell. The marks were then analysed in the project cell manually. Marks were analysed on a school, year group and baseline/impact basis. For each school, year group and baseline/impact group the following were calculated – the mean score, standard deviation, standard error. These were then used to calculate “difference between means” (expressed by the “Z value”) to examine whether the mean scores and their distributions had changed between the baseline and impact year within each school. Some tables presented the quantitative information on a school by school basis. Others were derived from these and were intended to convey trends to those who otherwise would have experienced some difficulty in interpreting the quantitative data. These indicated whether the school had experienced an increase or decrease in the average score and whether the increase or decrease was large or not (Figure 11). Ragavan (1994) offered a textual summary

from this evaluation we find the following

58% of the project schools show an increase in the mean score in year 2 language

53% of the project schools show an increase in the mean score on year 2 maths

65% of the project schools show an increase in the mean score in year 4 language

63% of the project schools show an increase in the mean score in year 4 maths

whereas, in the control schools

17% show an increase in the mean score in year 2 language

21% show an increase in the mean score in year 2 maths

30% show an increase in the mean score in year 4 language

22% show an increase in the mean score in year 4 maths

Figure 13 Achievement increases (1988–1991) in Project and Central schools, PSEDP. Hatton.

INCREASE IN MEAN SCORES

	YEAR 2 LANGUAGE	YEAR 2 MATHS	YEAR 4 LANGUAGE	YEAR 4 MATHS
PROJECT SCHOOLS	29/51	27/51	32/49	31/49
CONTROL SCHOOLS	04/23	05/23	07/23	05/23

SIGNIFICANT Z VALUE IN POSITIVE DIRECTION

	YEAR 02 LANGUAGE	YEAR 02 MATHS	YEAR 04 LANGUAGE	YEAR 04 MATHS
PROJECT SCHOOLS	19/51	20/51	17/49	16/49
CONTROL SCHOOLS	nil	nil	04/23	02/23

A separate calculation was then conducted on the project schools and control schools in aggregate, the summary results of which are presented in Figure 12. These are summarised in text simply as “this shows the performance of the project schools is much better than the control schools”. In fact there are a number of observations which could be made from the table which would underline further the impact of the project.

The first is that enrolment appears to have increased in both the project and non project schools, as indicated by the “N’s”. Although, strictly, the “N’s” are the number of children who sat the test, and therefore exclude those who happened to be absent on the day of the test, nonetheless the figures provide an indication of enrolment. The enrolment appears to have grown in the control schools at the same rate as in the project schools. Mean achievement scores in the project schools have increased in both maths and language for both years 2 and 4; and have decreased in the control schools. The interpretation of this would require further work by the cell staff, but a preliminary interpretation would be that the control schools are experiencing an increase in their enrolment as part of a general upsurge and “upliftment” in education in the plantation community as a whole. However if special efforts are not made to increase other resources in line with this increase in enrolment (eg extra teachers, inservice training) then the quality of teaching and learning is likely to suffer, leading to a decrease in achievement levels. This may be what has happened in the control schools. The achievement increases observed in the project schools have occurred in spite of increases of between 20–25% in enrolment, adding even more weight to the conclusion of programme impact.

Figure 12 Mean scores of students in project and control schools, by subject and baseline/impact year

		N		Mean		SD		SE		Z value
		B	I	B	I	B	I	B	I	
PROJECT SCHOOLS	Year 2 Language	1716	2285	49.6	53.14	28.39	26.20	1.16	0.93	2.87 *
	Year 2 Maths	1716	2285	54.07	62	25.9	22.71	1.06	0.82	6.00 **
	Year 4 Language	1498	1869	46.92	54.0	27.16	23.90	1.2	0.97	4.56 **
	Year 4 Maths	1498	1869	40.98	46.62	22.7	21.32	1.00	0.85	4.33 **
CONTROL SCHOOLS	Year 2 Language	618	763	58.9	38.24	26.0	21.89	1.51	1.11	-10.8 **
	Year 2 Maths	618	763	66.6	53.45	23.83	23.23	1.41	1.19	-6.71 **
	Year 4 Language	494	620	49.7	39.54	25.85	21.13	1.78	1.20	-5.8 **
	Year 4 Maths	494	620	52.87	39.87	24.80	18.94	1.71	1.08	-6.65 **

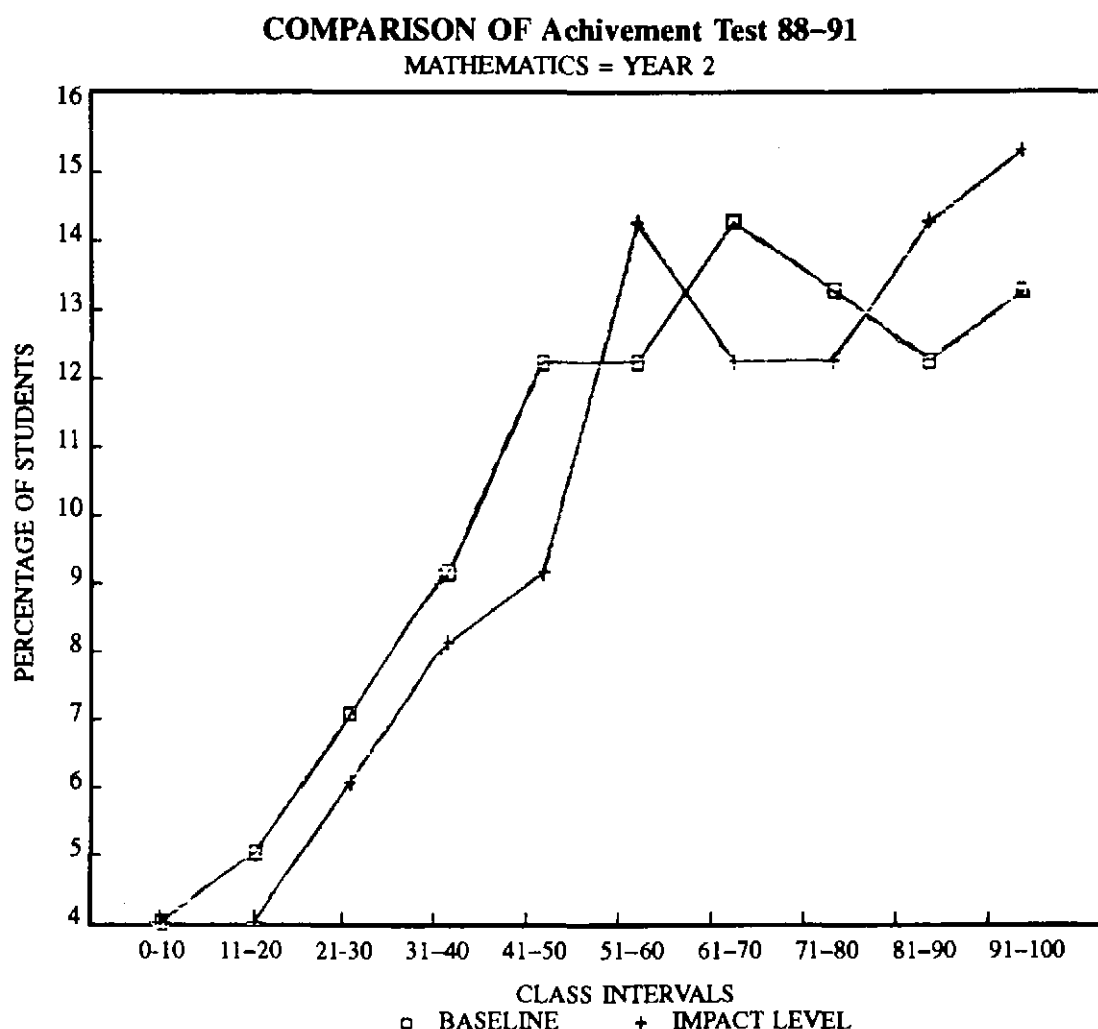
* $p < 0.01$ ** $p \leq 0.001$

One aspect of achievement not revealed by these statistics is the increase or decrease in the performance of particular achievement groups. It needs to be recognised that shifts in mean scores and changes in the distribution of scores fail to indicate whether all children in a school are gaining from the project intervention, or whether the gain is accruing to particular groups of children. In view of the project's overall concerns with "disadvantage" we were keen to see whether the subgroup of lowest achievers were gaining between the baseline and the impact years. Figure 13 demonstrates how this question can be addressed graphically. Note that this graph has been produced in the project cell by a recently acquired computer, which arrived too late to assist in the earlier computation of means, standard deviations etc.!

Figure 13 suggests that the lowest achieving as well as the highest achieving students children have improved their performance in the year 2 mathematics test. The lowest scores in the baseline test were between 0 and 10 marks; the lowest scores achieved in the impact test were between 11 and 20 marks. In the top two bands of achievement, 81-90 and 91-100, the percentages achieving within these bands increased between the baseline and the impact year. These data suggest that gains in achievement have been made by both the lowest and highest achievement groups. The data for year 2 language and year 4 maths and language are less clear cut.

This example demonstrates the type of data collection and analysis which has been involved in the evaluation of just one of the programme objectives. The data collection has been extensive and the data analysis time consuming. The entire exercise has been supervised and the final report written by a teacher with no special training in evaluation, save a limited amount of inservice and on the job training within the project. That the entire analysis has been conducted manually, with the aid only of a simple calculator, is testimony to the determination of project cell staff to see this long-term exercise through to a satisfactory conclusion.

Figure 13 The Distribution of Maths Achievement scores in Project and Control schools, PSEDH Hatton



At the same time the results are compelling and positive and capable of being presented to a wider audience, both within Sri Lanka and further afield. Although the process of data analysis and the production of a report has been slow, the skills which have been developed within the cell are such that the process can be completed within much shorter periods of time in the future, provided that the staff remain in place. The recent introduction of a computer to this particular cell and the availability of one or two staff with some computing and data analysis skills and interest mean that in future the results could be available within one month of the impact testing .

The timing of reporting

It should be recalled that the major purpose of impact evaluation is to inform decisions about the objectives of subsequent phases and about strategies for achieving those objectives. Although an external evaluation of PSEDH was undertaken in November 1991 (Kotalawala, Lofstedt and Pawar 1991), the impact achievement test was also scheduled for November 1991 (a month in the year determined three years earlier). The

results of the achievement test were therefore unavailable, even in raw form, to the external evaluation team. The results have been available in a well processed form only since early 1994. In practice then the results from the Phase 1 evaluation of achievement in maths and language were not used to make key decisions. Although the results have considerable historical value and could be useful to those seeking retrospective justification for aid expenditure, their value to Sri Lankan project managers lies more in the data and evaluation skills which have been developed through their generation than in the informing of decisions which project managers may take in 1994.

Conclusion

Since 1991 the PSDP and PSEDPP programmes have devoted more time than before to the consolidation of their internal evaluation systems and the results from a full-scale phase 2 internal evaluation should be available by December 1994. However, as was pointed out earlier, the decision to fund phase 3 of the project from July 1994 has effectively been taken already and the objectives will remain unchanged. Thus, although the efficiency with which the internal evaluation data will be processed during the last stages of phase 2 will far surpass that in phase 1, decisions about the funding of future phases will nonetheless precede rather than follow the results of evaluation, undermining to some extent the purpose of the evaluation system.

A considerable amount of skill development has taken place and all programmes have increased their internal capacity for internal evaluation work. Moreover the skills developed through the macro evaluation work are being put to a good, and a possibly more productive use, in a series of small-scale evaluation studies with a shorter time-scale and a greater chance of generating information which can be used for decisions lower down the implementation hierarchy. We turn to these next in chapter 6.

CHAPTER 6

From Macro to Micro Evaluation: six studies

Monitoring has been described as a process of checking progress on specific “input” activities against planned input targets over relatively limited periods of time. Impact evaluation has been described as a process of judging whether the broad objectives to which one or more activities may contribute have been achieved. Both are currently being undertaken in all the primary education projects supported by SIDA in Sri Lanka. But there is third type of evaluation study which is emerging rapidly within all the project implementation structures. It may be described loosely as a small-scale evaluation study led by micro or specific objectives. It is related very closely to ongoing professional development work in the classrooms. It uses many of the broad ideas of impact evaluation and employs many of the same techniques but its time frame is shorter. Although the consultant has advised on the design, conduct and analysis of the studies, the topic under study has been chosen by the project staff. More significantly, the results of the studies can be used by those who control the resources and who are in a position to act on the results. It is perhaps this last factor which is responsible for generating high levels of professional interest on the part of some project staff. The purpose of this chapter is to provide examples of a range of these small scale evaluation studies. Six examples will be presented in some detail.

Study 1: Building evaluation into reading schemes

The director of PSEDP presented the “reading study” in two of the district cells (Hatton and Kahawatte) as good examples of studies which have led to resource decisions. It is

definitely helping us to improve the reading standards and it led to a decision in one of the cells to create a mobile library for the schools with the books which had been given originally to the cell for the use of the teacher educators. Earlier these books had been kept in the office. Now they are circulating among the schools. From the reading study the Hatton and Kahawatte cells now know which schools and students are weak. We are able to suggest some remedial measures for such pupils. For strong students we say “go off the textbooks and onto other things”, for the average, “stay on the textbook” and for the weak student we say “go back to the earlier textbooks”. For example a year 5 student may need to go back to year 2. I should have done all of this in the projects years ago!

THE HATTON STUDY

One of the teacher-educators in the Hatton project cell described how the intervention came about, and how a regular and frequent evaluation of reading skills was built into the intervention programme.

We had been talking for some time about reading skills.. All the teacher supervisors in the group agreed that the reading ability was low. When we discussed the problem with the teachers they always said, simply “children are not interested, they do not have the ability”. Teachers never seem to acknowledge that they can improve their practice.

We decided to send formats to every school and asked them to do compulsory evaluation of reading. Each child was graded A-E. We specified the criteria. We then asked the teachers to use the Tamil reader and other story books. We discovered, after the first assessment, that there were some children in the upper classes who were extremely weak in their reading. The teachers had

not been giving them any remedial activity. We suggested that they should ask these children to go back to the year 1 and year 2 reader.

When asked whether she thought that the testing *per se* was responsible for the improvement in reading standards or whether the intervention comprised a number of elements the teacher educator explained

As supervisors we showed an interest in the reading and showed the teachers how to do their own evaluation using the criteria. We started the evaluation in June (1993). Some teachers have done the evaluation three times, others four times by now (February 1994). We believe that if change is coming about it is because of several things. We are helping the teachers become aware of the individual difference in levels of reading skill. We think that the testing itself may be having a motivating effect on the students and the teacher. We are suggesting that story books as well as the official reading book be used with the children. We are supplying schools with extra reading material through our mobile library. And of course we ourselves are showing an interest in the reading abilities of the children. All of these things are happening at the same time. We cannot say which is the most important factor.

The teacher-educator and her colleagues in the Hatton cell decided to “assess reading in a systematic way the improvement in 10 schools, selected randomly”.

In school 1 there have been three testings. The percentage with A grade increased from 0% to 21%; the percentage with E grade decreased from 35% to 7%. In a second school there were five year 5 children who could not read at all. We started them off with the year 1 book. After 6 months two of the five got their promotion to year 6; they were able to read at the year 5 level. The other three did not reach the level and will repeat the year. ... but they will catch up. In another school we found that when we tested in March there no Ds and quite a few A's, but when we retested in June, we used a different book but of about the same level, not the set Tamil reader. This time there were no A's. We felt that the children had been memorising the set book and were unfamiliar with reading anything that was outside the set book.

We recommended the use of story books as well as the set book. We are helping them find the extra books through our mobile library. Our overall assessment so far is that there is a great improvement. As a group we've decided that we want to use the same evaluation test across schools. We are developing that now. Unlike some of our other evaluation work we decided not to use a control group. This intervention was about change which we wanted to bring about fairly quickly in all our schools.

THE KAHAWATTE STUDY

The reading programme was implemented also in the Kahawatta cell but it took a slightly different form. The basic strategies have been similar (regular testing, the development and provision of supplementary materials, work cards, and general support and interest from the project cell) but the method of evaluating the reading has differed. The project coordinator and one of the teacher educators (a highly experienced primary school teacher) have developed a 16-level set of performance criteria specific to the learning to read of the Tamil language (Figure 14).

The general findings in the Kahawatte study confirm the pattern found in the Hatton study of considerable variation in the levels attained by children in any one year group. For example, year 1 children appear to achieve in a range which spans levels 1 to level 7; year 5 achieve in a range which spans level 6 to level 13. Teachers are encouraged to give children material appropriate to their level and to develop as much reading material as possible. They complete monitoring formats and submit them via the cell to the SIU at the Ministry, where the information informs the design of in-service training pro-

grammes for teachers. Although the teacher educators and project coordinator have been involved actively in the testing programme to date they say that their role will change gradually from that of “active evaluators” to “monitors”, engaged only in “random checking”.

This approach to the development of reading skills via assessment is also leading to a realisation on the part of the teachers of the possibilities for multi-grade teaching, construed currently as multigrade teaching within year groups (what might be termed elsewhere mixed-ability teaching), the “grade” referring here to grade or level of reading rather than year grade.

Study 2: Comparing competencies of new entrants at the beginning and the end of their first year in school

The “entry competency test” was designed by members of the primary education section of the National Institute of Education in 1988. It was intended to assess basic competencies in language and mathematics of the primary child at the point of entry to year 1. The test can be administered by teachers to individual children and is marked as the test proceeds. Teacher educators in the PSDP project in the Kandy and Hatton cells have been encouraging teachers to administer these tests at the beginning and the end of Year 1. Like Study 1 this study attempts to monitor progress of individual children (rather than a project as a whole) and to help teachers to teach better through their appreciation of the learner’s level.

The basic skills assessed in language are:

hand-eye movement; drawing simple shapes; copying shapes; selecting identical shapes; selecting non-identical shapes; identifying letters; listening and speech

The basic skills assessed in maths are:

identification of simple relationships; counting; quantifying; identifying symbols

Figure 14 Sixteen Reading Achievement Levels, Kahawatte Cell, PSED

- 1) Able to identify the letters with horizontal and vertical lines.

பா, தா, டா (ta as well as da)

- 2) Able to identify the letters with a combination of horizontal and vertical lines, half circles and circles.

மா, க, ச, ழ (ka as well as ga)

- 3) Able to identify the letters involving the 'a:' sounds.

கா, மா, பா (ka, ma, pa)

- 4) Able to identify the letters indicating 'e', 'e:', 'u', 'u:'

வி, கி, தி, பி (vi, ki, thi, pi)

- 5) Able to identify the letters indicating 'e', 'ae' sounds.

கெ, கே, பெ, மெ (ke, ke:, pe, me)

- 6) Able to identify letters with 'ai' sounds.

கை, பை (ka:, pa:)

- 7) Able to identify the letters involving 'b', 'a:' sounds.

கொ, மொ (ko:, mo:)

- 8) Able to read associating the sounds (phonic method)

- 9) Able to read associating the sounds placing the finger on the words.

- 10) Able to read three or four letter words.

- 11) Able to read without placing the finger on the words.

- 12) Able to read words not more than four letters.

- 13) Able to read understanding the punctuation marks.

- 14) Able to read newspaper and periodicals.

- 15) Able to identify words involving 'Sanskrit' sounds.

ஷ, ழ (sha, zha)

- 16) Able to read poems, songs and verses.

The individual assessments of learning achievement are then collated in tabular and graphic form by the teachers and passed on to the teacher educators in the cell for further collation and identification of trends.

INFORMATION USE

The teacher educators claim that teachers can use information from these individual assessments to identify individual differences in learning and to take remedial action with Year 1 children. They claim to have trained the teachers in different types of remedial action and report that the teachers have displayed the marks in the classroom. However to what extent the teachers have in fact done these things is difficult to judge. Clearly the teacher educators are enthusiastic about this work and are in a good position to take the work further. Their own evaluation of the teacher's use of the learning evaluation tool might usefully address the following questions in the future

- what did the teacher internalise about each child based on the information generated by the format?
- what practical steps, if any, did the teacher take as a result of this information, both with respect to individual children and the class in general ?
- was the teacher able to link specific types of remedial or additional learning activity to specific lapses in competency. For example can she identify what she should/did do for child number 5 who was unable in January to recognise all the letters of the alphabet, bar the first?
- how much improvement was there over time (i) for individual children and (ii) for the class as a whole?
- how many of the children were, by the end of the first year in the primary cycle, unable to achieve the basics ?
- how many of those who did not achieve mastery of the basics were promoted to the next class?
- were the profiles of this information, plus suggested remedial action, passed on by the Year 1 teacher to the Year 2 teacher when the children were promoted?
- how much improvement in the schools as a whole are the teacher educators in the cell able to identify?
- which are the particular areas of difficulty both at the beginning and at the end of the first year?

Study 3: Monthly curriculum and diagnostic test: MIRDP

The MIRDP Education Component has developed a monthly curriculum and diagnostic test to help the teachers pace their work across the year, identify areas of learning difficulty and propose remedial action. The teacher educators work with teachers to divide the annual syllabus into monthly “chunks” and to devise relevant assessment of the achievement of learning across that part of the syllabus. At the end of each month a

test is administered to the students by the teachers. The curriculum and assessment exercise is divided into five steps

Step 1: the syllabus is divided into monthly chunks and is listed according to the code number of the concept or topic in the syllabus eg 5.1 shape; 7.1 money; 14.1 addition; 11.1 time; 3.2 relationships; 13.3 numbers

Step 2: skill outcomes are identified in relation to a concept. In the case of syllabus item 5.1, “shape”, this reads: *is able to select a set defined by shape from a group of objects having several characteristic*. Similar skill outcomes are defined for the other elements of the syllabus

Step 3: assessment activities for the student and teacher are suggested. An assessment activity for “shape” might read: *introduce objects of different types. . .and ask students to make several selections according to shape*. The teacher notes the responses in a format

Step 4: “remedials” are listed alongside each of the assessment activities to help the teacher and the child who has not yet achieved mastery eg *if the child is unable to group according to one of the shape criteria. . . take the child back to an exercise based on sorting according to colour (a year 1 syllabus expectation). Give more questions according to several criteria and return finally to shape. If the problem still remains then bring the problem to the workshop where it may be discussed with the master teachers*.

Step 5: Workshops: One day workshops are held on different days with the Year 1, Year 2, Year 3, Year 4 and Year 5 teachers. Teachers bring to the workshop the format which lists the strengths and weaknesses of each child; also a summary of performance by skill of the whole class. In the first part of the morning they work in groups of 8–10 persons to discuss the learning problems experienced by their students, using their pre-pared formats. Subsequently they regroup according to specific problem area. In a third session they are presented with the curriculum schedule, the expected skill outcomes and the assessment questions for the following term. A teacher is free to decide how she paces the learning and assessment i.e. whether she integrates the assessment with the learning or administers as a “test” covering all the syllabus items after some period of time.

This exercise has been conceived within the MIRDIP as a “special evaluation study” and illustrates the use by teachers of systematically recorded and discussed information for diagnostic and remedial work with students.

Study 4: The development and evaluation of self-study materials: PSEDIP

In 1993 PSEDIP embarked on a programme of development of self study materials in the Tamil language for use by students in Years 3–5 of the primary cycle. The idea for this programme arose out of a number of concerns expressed by the teachers and teacher educators of PSEDIP

shortage of teachers, lack of additional learning material and variation in comprehending ability of the learners, especially in the primary cycle, are a few of the reasons of slow achievement in language and mathematics. Also due to these factors slow learners or low ability groups were generally left behind and, at the other extreme, the learning needs of fast learners or high ability groups were not catered. This situation leads to the necessity of identifying and developing learning material which would make learning interesting and encourage the learner to face challenges in learning (PSEDIP workshop report 1993)

The development of the materials involved a number of well planned steps and a methodical built-in evaluation of the materials before their mass production. The steps were as follows:

Step 1 A 5-day workshop was held at a school, organised by a teacher educator from the PSEDIP-SIU and a resource person from the NIE. The other resource persons were the teachers themselves. They identified problem learning areas in language and maths, designed preliminary remedial materials, tried them out in the school in which the workshop was being held, and revised and graded achievement levels.

Step 2 The materials were then tried with a large sample of children in plantation sector schools. An assessment format for the try-out was devised and experienced teachers were trained to conduct the try-out. Data were analysed by and with the teachers who conducted the try-out. The analysis was conducted in terms of the percentage of children who gained correct answers plus a listing of the different types of error made those who gained incorrect answers.

Step 3 On the basis of the analysis the materials were revised by the teacher educators and teachers. After revision the materials were typeset, mass produced and laminated for durability of use. Several hundred self study “cards” have been produced to date.

The following four examples illustrate the changes and improvements which have been made to the materials through the process of evaluation. Each example describes the material “before” and “after” try-out.

LANGUAGE EXAMPLE NO 1:

Before: Figure 15 shows the initial material, designed as an exercise in reading, comprehension and selection of antonyms. Students are presented with a sheet of 12 words. On a second page they are presented with a maze of letters and are told that they could find the word with the opposite-meaning (the antonym) within the maze. They are requested to select and write the word from the maze.

Figure 15 Self study materials, Tamil language exercise in antonyms

அ	ந்	க	ல்	சோ	ச	ப	ழ	மை	வா
து	ந்	ப	ம்	மி	ம்	டு	கி	ஆ	மு
ய	ய்	ட்	இ	ட	ப	ப	க	ஞ்	ச
ச	பு	ற	ம்	ண்	ல்	வி	டி	வெ	ப
அ	டா	ந்	ச	மா	தா	ன	ம்	று	ய
ச	மு	செ	மை	செ	உ	ர்	ப	ப்	த
த	ட	எ	ரு	ய	ச்	டி	அ	பு	ஞ்
தி	ர	வ	த	ற்	கி	ச்	ப	ய	டி
ய	ம	ள்	வ	கை	வ	வி	ப	ள்	ள
ம்	ச	ள	உ	ஏ	ச	டி	எ	கை	டி
வ	ன்	ல்	கி	அ	நா	க	ரி	க	ம்

பின்வரும் சொற்களின் எதிர்ப் பொருள்
கொடுக்கப் பட்டுள்ள தமிழ் உரை
அவற்றைக் கவனமாகப் படித்து உங்கள் பதிலை
புத்தகத்தில் எழுதுக.
உதாரணம்: பின்மை - துன்பம்
இழைப்பு - இழைப்பு

கின்பம்	உலோபி
நாகரிகம்	புதுமை
வேற்றுமை	விரும்பு
இயற்கை	சுறுசுறுப்பு
சண்டை	மேடு
த்தியம்	அகம்

Response: The response was poorer then expected and it encouraged the teacher educators to make the instructions clearer and to reduce the amount of redundant information.

After: Figure 16 shows the item after revision . The item is presented in its entirety on one page. The word maze included many Tamil letters but some vertical and horizontal strings of letters were highlighted. These indicated the strings from which selections were to be made. Also a space was clearly left on the card to indicate that the word and its opposite should be written alongside each other.

Figure 16 Self-study material, Tamil language exercise in antonyms.
Revised after trial

வ்	ந	ங்	ல்	இ	ய்	ர்	ண்	ற்	ம்
து	ன்	ப	ம்	ர	ப	கை	வ	ர்	ள்
க்	மை	ள்	ட்	வு	ழ	ச்	ள்	ன்	த்
க	ப்	ள	உ	ண்	மை	ம்	ள	வ்	ச்
ம்	சோ	ம்	ப	ல்	ந	ந	ல்	ல	து

DI

கீழே உள்ள சொற்களுக்கான எதிர்ச் சொற்கள் மேலே கட்டங்களுள் மறைந்துள்ளன. அவற்றைக் கண்டுபிடித்து எழுதுங்கள்.

(உதாரணம்) சந்தோசம் - துக்கம்

1. தீமை . _____
2. இன்பம் . _____
3. பகல் . _____
4. நண்பர் . _____
5. புதுமை . _____
6. மேடு . _____
7. கெட்டது . _____
8. பொய் . _____
9. சுறுசுறுப்பு . _____
10. உலோபி . _____

PSEDP/SIDA-MOE HE T1993.

LANGUAGE EXAMPLE NO 2

Before: Figure 17 contains eight pictures, underneath which are eight boxes of mixed letters presented in random order. The task is to select the correct box of mixed letters, then write out the correct order of the letters.

Response: The response was very poor. Only 40–50% of children were achieving correct answers. The teacher educators felt that they had included too many levels of randomness. The

letters within the boxes were presented randomly and the layout of the boxes in relation to the pictures was also random.

After: Four pictures are presented (Figure 18). The correct word is presented alongside the picture but in random letter order. The child's task is to construct the correct letter order and write it out.

MATHS EXAMPLE NO 1

Before: The material (Figure 19) comprises four maths "problems", involving addition and subtraction and 2-digit, 3-digit and 4-digit numbers. The first item reads

There are 64 houses in an estate. 27 new houses will be built. How many houses will there be in the estate?

Response: The teacher educators reported "quite a good response. . . but many students did not show their "workings" and we need to see how they are setting it out". And we want to restrict the problems to 2-digit numbers.

After: The layout of the question is changed (Figure 20) and the wording is different.

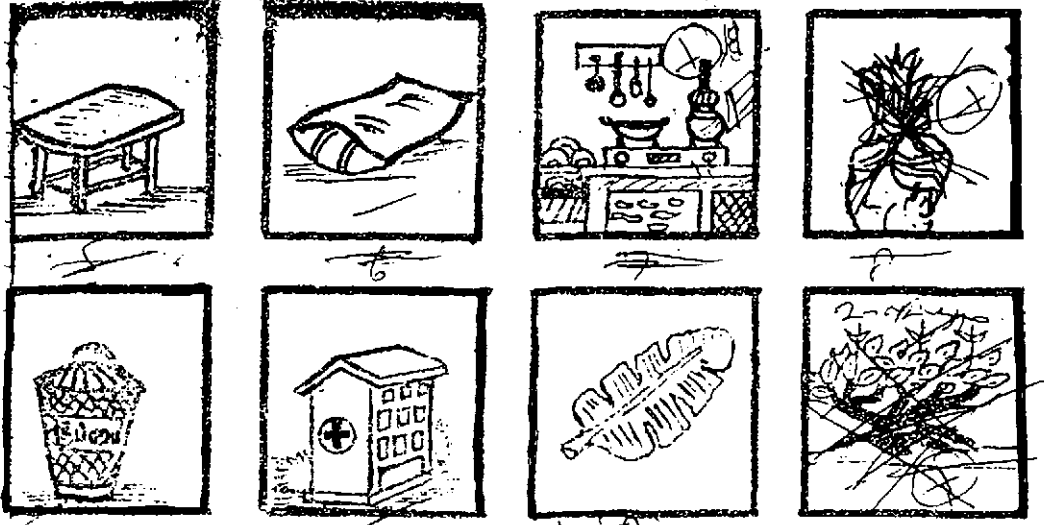
There are 46 houses in the estate and 28 new houses will be built.. How many houses will there be in the estate?

Number of houses in the estate =

Newly built houses in the estate =

Therefore, total number of houses in the estate =

Figure 17 Self-study material, Tamil language exercise in matching and word construction



படங்களுக்குரிய சொற்கள் பக்கத்தில் மாறியுள்ளன.
அவற்றை ஒழுங்குபடுத்தி ~~பயன்படுத்தி~~ பயன்படுத்தி 4 நகல்களில்
எடுத்துக் கொள்ளுங்கள்.

1
1. இடம் புகுவி

2
2. கை பிடித்து

3
3. மைசாயறைல

4
4. இட கைவைப்பி

5
5. கை மே

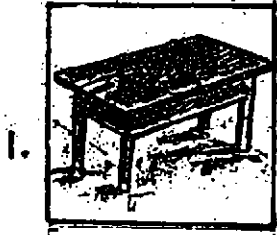
6
6. கைகளைப் பிடித்து

7
7. கை வைப்பி

8
8. மைசாயதிவைத்

Figure 18 Self-study material, Tamil language exercise in matching and word construction, revised after trial

படங்களுக்குரிய சொற்கள் பக்கத்தில்
மாறியுள்ளன.
அவற்றை ஒழுங்குபடுத்தி பயிற்சி
புத்தகத்தில் எழுதுங்கள்.



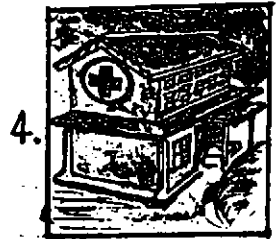
சை மே



ணை ய லை த



டை கூ க் கு பை ப்



லை சா ய தி வை த்

Figure 19 Self-study material, Maths exercise in Tamil on addition and subtraction

- ① தேயிலைத் தோட்டம் ஒன்றில் 64 வீடுகள் இருந்தன. இவ்வாண்டில் புதிதாக 27 வீடுகள் அமைக்கப்பட்டன. கட்டப்பட்டது. தற்போது அத்தோட்டத்தில் மொத்தம் எத்தனை வீடுகள் உள்ளன?
- ② பால் சேகரிக்கும் வாகனமொன்றில் திங்கட்கிழமை 126 லீற்றர் பாலும் செவ்வாய்க்கிழமைகளில் 117 லீற்றர் பாலும் சேகரிக்கப்பட்டது. கிரு நாட்களிலும் சேகரிக்கப்பட்ட பாலின் அளவு என்ன?
- ③ கிறிஸ்து தோட்டத்தில் 164 ஆண் தொழிலாளர்களும் 157 பெண் தொழிலாளர்களும் வேலை செய்கின்றனர். அத்தோட்டத்திலுள்ள தொழிலாளர்களின் மொத்த எண்ணிக்கை என்ன?
- ④ தேயிலைத் தொழிற்சாலை ஒன்றில் முதல்நாள் 1357 கிலோகிராம் தேயிலைக் கொழுந்தும் அதேநாள் 1643 கிலோகிராம் தேயிலைக் கொழுந்தும் அரைக்கப்பட்டது. கிருநாட்களிலும் அரைக்கப்பட்ட தேயிலைக் கொழுந்து எத்தனை கிலோகிராம்?

Figure 20 Self-study material, Maths exercise in Tamil on addition and subtraction, revised after trial

வசனங்களை எழுதித் தீருங்கள்.

S10

1. பஸ் வண்டியொன்றில் 46 பிரயாணிகள் பயணம் செய்தனர். பஸ் தர்ப்பு ஒன்றில் 28 பிரயாணிகள் கிறங்கினர். கிப்போது பஸ்சீலுள்ள பிரயாணிகளின் எண்ணிக்கையைக் காணுங்கள்.

பயணம் செய்தவர்கள் = _____

கிறங்கியவர்கள் = _____

பஸ்சீலுள்ளவர்கள் = _____

2. பெட்டியொன்றில் 56 பேனாக்கள் இருந்தன. கிஷற்றில் 37 பேனாக்கள் விற்கப்பட்டன. பெட்டியில் எஞ்சியுள்ள பேனாக்கள் எத்தனை?

பெட்டியிலிருந்து பேனாக்கள் = _____

விற்கப்பட்டவை = _____

மீதி = _____

3. வகுப்பொன்றில் 48 மாணவர்கள் இருக்கின்றனர். கிஷர்களுள் 29 பேர் பெண்கள்.

ஆண்களின் தொகை எவ்வளவு?

வகுப்பிலுள்ள மாணவர்கள் = _____

பெண்கள் = _____

ஆண்கள் = _____

MATHS EXAMPLE NO 2

Before: Figure 21 presents an exercise in multiplication and working out that some numbers may be multiples of more than one other. For example 15 is a multiple of both 3 and 5. The patterns at the top of the page symbolise that the exercise concerns multiples of 3 and 5. ... but as will be seen the patterns are not very distinct. The single units run into one another and do not obviously symbolise 3s and 5s. Students are asked to circle (O) the multiples of 3, and cross (X) the multiples of 5. They are then presented with a telegraphic question at the bottom of the matrix:

⊗ the numbers marked in this way are the product of?

Response: The results were less good than expected . The teacher educators felt that the solution lay in making the instructions clearer and leading the students through a sequence of subtasks in order to arrive at the end point which involves restructuring the task and writing instructions more clearly.

After: The number series was also extended up to 100, so that a greater number of multiples of both 3 and 5 might be identified (Figure 22). The task at the end was also made clearer and was intended to lead students through a sequence of tasks and thought.

Circle the numbers which are multiples of 3

the numbers which are multiples of 5

write down all the numbers which have O around them

write down all the numbers which have a "x"

write down all the numbers which are circled in this way ⊗

This sign ⊗ indicates the numbers which are multiples of both. . . and . . . (students are expected to work out and insert the answers 3 and 5)

All four studies referred to above have involved activities designed to improve the learning achievement of those children enrolled in school. They represent ways of improving a range of activities which, taken together, are likely to contribute the achievement of one of the main objectives of the primary education projects – improvements in the quality of learning. But we have also seen a number of small-scale evaluation studies being designed in relation to the other broad objective of the programmes – increasing the participation rates of child in school i.e. increasing enrolment and reducing dropout. Two studies are presented, The first (study 5), a community survey in estates in the PSED-P-Kahawatte area, was designed to increase enrolment ratios in year 1 and reduce dropout. The second (study 6) is a careful and detailed study of the flow of students through the primary school cycle.

Figure 21 Self-study material, Maths exercise in Tamil, in multiples

கட்டங்களில் எழுதப்பட்டுள்ள
எண்களில் 3 கிடைத்து பெருக்கிவிடலாம்
○ என அடையாளமிடுங்கள்.
5 கிடைத்து பெருக்கிவிடலாம்
x என அடையாளமிடு



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

⑧ என அடையாளமிடப்பட்டவை கிடைத்து
பெருக்கிக்கொடுக்க.

Figure 22 Self-study material, Maths exercise in Tamil, in multiples, revised after trial

3 இன் மடங்குகளைச் சுற்றி
○ என அடையாளமிடுங்கள்



5 இன் மடங்குகளுக்கு
X என அடையாளமிடுங்கள்



1	2	3	4	5	⑥	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

○ என அடையாளமிடப்பட்டுள்ள எண்களை எழுதுங்கள் .
X என அடையாளமிடப்பட்டுள்ள எண்களை எழுதுங்கள் .
⊗ என அடையாளமிடப்பட்டுள்ள எண்களை எழுதுங்கள் .
⊗ என அடையாளமிடப்பட்டுள்ளவை இனதும் இனதும் பெருக்கங்களாகும்.

Study 5: Community survey in Kahawatte

In Kahawatte, the community survey has been conducted annually since 1992 by school principals and teachers, trained by the project cell coordinator and teacher educators. School principals and teachers visit all homes in their catchment area. They identify all children aged 5–10 and ascertain whether or not they are enrolled in school. It does not matter whether they are enrolled in the estate school or another school. The important thing to know is whether they are enrolled in any school. The purpose of the exercise is twofold

- to identify non-school going children and to take measures to enrol them in school

- to calculate accurately net enrolment ratios (children of school-age enrolled in school compared with children of school-age) and to trace the progress in these ratios over time, and in particular over the plan period

A clear format has been designed by the cell for the recording of the data by the principals. To date the information has been used by the principals mainly to enrol or re-enrol non-school going children. The raw data for the accurate calculation of net enrolment ratios are available for 1992, 1993 and 1994 but the calculations have not yet been completed by the project cell. This is unusual data, rarely available at local geographical area level.

The administration of the survey has followed slightly different styles in the three years in which this study has been conducted. In 1994 principals are expected to prepare a precise map of the catchment area of the school, conduct the survey and take remedial measures to enrol the child in school before the community survey “payments” are made by the cell. In 1992 and 1993, by contrast, the payments were made before the “remedial” steps had been taken.

Study 6: Student flow in the primary cycle

Confusion often reigns when teachers, principals and education officers discuss the meaning of repetition and dropout numbers and rates. Principals experience difficulty in calculating them even after workshop training and instruction. Normally it is the Data Processing Branch of Ministry of Education which calculates these rates, reporting them at district, provincial and national level. They are system-level statistics, often averaged across all thirteen years of the school system, districts and provinces. Although the raw data for Ministry-level calculations are derived from schools, teachers and principals are never informed of the “rates” calculated for their school. Such data are never fed-back to schools. They are simply facts and figures sent up the line to the Ministry.

It has been our experience in workshops to find officers, teachers and principals holding a variety of different interpretations of repetition and dropout numbers and rates. For some, a repetition rate for year 5 in 1991, meant the number of students enrolled in year 5 who were repeating that class, compared with the total enrolment in year 5 in calendar

year 1991. For others it meant the number of students in year 5 in 1991 who would repeat year 5 during the following year, 1992, compared with the number enrolled in year 5 in 1991. For still others it meant the number of students in year 5 in 1991 who would repeat year 5 during 1992 compared with the number enrolled in year 5 in 1992. Dropout rates caused a similar problem of calculation and interpretation. But in addition there were problems with the definition of a dropout. Some teachers were inclined to classify those who transferred to other schools as dropouts, alongside those who left one school and failed to enrol in another.

We began to realise that the data which principals returned through the annual school census were probably subject to these various interpretations leading to a large degree of unreliability in the data. The author's inclination was to drop altogether the attempts to calculate dropout and repetition rates calculated across a school and focus simply on enrolment data in the different year groups, on the grounds of greater reliability and interpretability. But colleagues wished to continue their quest for dropout and repetition rates.

We compromised by developing a small-scale study in a small number of schools tracing the educational destinies of a group of students who enter a school at the same time, by following them through the primary cycle over a period of years. Through this we have generated rates of repetition, dropout, transfer and graduation. The study addresses the following questions

how many of the group who start school together would drop out at some point during the first five years?

how many of the group would repeat a class at least once during their first five years of schooling?

how many of the group would have repeated classes more than once during their first five years of schooling?

how many of the group would still be together in the same class after five years?

how many of the group would have transferred from this school to another school?

how many of the group would have died?

how many of the group would move through the system at the intended speed and gain promotion to year 6 at the end of year 5?

We felt that these questions and their answers would make intuitive sense to principals and teachers. Figures were generated which could be converted meaningfully and simply to rates or percentages, and were figures which, when compared with subsequent groups of school entrants, could generate some indication of change in efficiency *at the school level*. For example, the data from 40 schools suggest that barely half of those who entered primary year 1 in 1986 had graduated from the primary cycle five years later. In a few schools the percentage was as high as 100%, but in others it was as low as 0%.

These studies are being conducted by teacher educators in both the PSDP and the PSED and have involved tracing carefully the names of students who entered a school together through the registers. The first stage of the PSDP study will appear shortly in an evaluation report series to be published by the MOECAI.

Conclusion

None of these six small-scale evaluation studies was planned at the outset of their respective programmes. All have arisen out of the implementation activities undertaken by teacher educators. The design and planning of most have benefitted from discussion at workshops with other teacher educators and with the author. Those who engage in these studies do so with considerable enthusiasm; indeed, with rather more enthusiasm, than has been shown for the longer term impact evaluation of the overall programme. There are several possible reasons for this difference. First, these small scale studies have a relatively short time-frame and can be started and completed by the same person over the space of 1–2 years. Second, the technical and logistical characteristics of the data collection, collation and analysis are less complex than those in the impact evaluation of the whole programme. The impact evaluation of the programme requires an overview of the whole as well as the parts. Third, the studies are linked to those activities for which those who conduct and organise them have an implementation responsibility. They are being done because they are perceived to bear some relation to activities for which the person has direct responsibility, access to resources and the chance to use the information to improve future implementation.

At the same time, all those involved in these small scale studies are involved to varying degrees in the different stages of the impact evaluation of the whole programme. All have attended workshops on the principles and practice of evaluation and all are applying some of what they have learned to their educational practice as teacher educators. In study 1 the principle of evaluation feedback is being used by teachers to make decisions about appropriate levels of reading material for individual students. In study 2, on the learning competencies of new students at their point of entry to school, the evaluators employ a “before” and “after” design, examining individual performance at the beginning and end of the year. The evaluation is participatory, in the sense that the performance data are collected by the teachers who, with guidance, analyse the data and build up a picture of differentiated learning achievement of children in their class.

Study 3 shares the application of the principle of participation but attempts to link specific competency assessment with the official syllabus. The assessments are recorded in a systematic way and simple addition techniques are employed to assist the teacher synthesise the evaluation data collected. The evaluation occurs at two levels on a frequent and regular basis; first in the classroom where the teacher evaluates the students frequently and regularly; and second in the teachers’ workshops where the teachers engage in self and peer evaluation of their previous month’s work. Study 4 is an example of trialled materials evaluation using a participatory approach. Self-study learning materials are designed by teachers in line with learning problem areas identified by themselves with the guidance of a national-level expert. The materials are trialled with a small number of children and revised. They are then trialled on a larger pilot sample and the results of the try-out recorded in a standard and systematic way. The analysis of “errors” and second revision of materials involves both teachers and teacher educators. Only after this second revision of content is the layout of the materials subjected to expert assistance from printers before their mass production.

Study 5, the community survey of school enrolment and non-enrolment, is an evaluation which fulfils two purposes. The first purpose is to assist children those who were not enrolled in school to do so. The data generate immediate remedial action. The second purpose is to generate data by which net enrolment ratios can be calculated for catchment areas, such ratios being impossible to calculate through the statistics collected routinely by the Ministry of Education. To these two might be added a third. The collection of data helps principals maintain contact with all households in the community. Study 6 is the least participatory of all. Teachers record enrolment data in a systematic way but, because the study is longitudinal, little can be done with the data for some time. The value of this small-scale study lies in its attempt to develop measures of student flow at the school level, which have meaning for principals and teachers. At the same time the studies are designed with a “before” and “after” perspective which, because each study of flow traces students over a period of 5–6 years, employs data over a 10–12 year period.

In short, many of the principles of impact evaluation, discussed at the level of macro impact evaluation, have been internalised and transferred to a range of small-scale studies at the micro level. The scope of each of the individual exercises has been small-scale, the organisation of personnel relatively uncomplicated and the enthusiasm for the conduct and completion of such studies high.

Chapter 7 Towards the Future

This chapter sets out briefly guidelines for SIDA based on the experiences reported in the previous six chapters and are intended to assist those who wish to encourage internal monitoring and evaluation in primary education programmes. The guidelines arise out of a specific set of experiences in Sri Lanka. Consequently their application to other settings will need to be judged by the reader. In order to further dialogue among interested parties elsewhere, and also in Sri Lanka in the future, some of the guidelines are posed as questions and dilemmas.

1. Monitoring and Evaluation are central to the overall process of project planning and management. Discussions about their role should always be conducted in relation to both project planning and management. Monitoring and evaluation require different levels of skill, different routines of data collection and lead to different types of decision; hence it is useful to separate these two concepts in the language of project planning. We found it helpful to think about monitoring in relation to activities, of which there may be many contained within a plan. We found it helpful to think about evaluation in relation to broad objectives, of which there will be a more limited number. Monitoring is an integral part of good internal project management. The information which monitoring systems generate are important for project directors. Evaluation is less obviously an integral part of good internal project management, currently. Its importance appears to lie in two rather different areas. First, it is an important aid to the donor in its “accountability” to the domestic taxpayer; second the principles and techniques of evaluation may support the professional development of teachers and teacher educators.

2. The strength of the importance attached by the donor to *internal* evaluation, as distinct from *external* evaluation has never been made very clear. If the donor is to attach greater importance to internal evaluation in the future then it needs to be integral to the project planning process, from the beginning through to the end. This means, in effect, that insiders need training in the purpose and practice of base-line studies, and training and continuous support for different stages of data collection, data analysis and data report. If the results of internal evaluations are to be an integral part of the discussion about the nature of support for future project phases then the work needs to be timed and resourced accordingly. Internal evaluation is not part of a Ministry of Education’s normal routine and is not usually a condition for future resourcing of activities. This is true not only in Sri Lanka but in many industrialised countries also. Combined with the progressive decentralisation of project decision-making from SIDA to Ministry-level, this reality poses a dilemma. How does SIDA generate the information it requires for its decision-making and accountability from a project operating in a management culture in which this type of information is not generated as a matter of routine?

3. It is always possible of course that SIDA’s information needs overlap to a certain degree with the information which is generated fairly easily from within a project. But insiders cannot judge the degree of overlap in the absence of requests from SIDA for specific types of information. Experience suggests that insiders willingly oblige with

information, if that information is clearly specified and requested. Vague expectations leave project managers guessing and just a little frustrated.

4. Training needs must not be overlooked. Few project personnel have specialised training in monitoring and evaluation. The training needs for monitoring are not particularly complex and involve skills in the choice, layout and physical presentation of information. This involves word and elementary data processing. The training needs for evaluation are more complex, involving techniques of evaluation design, data collection, data transformation, data analysis, data reporting, data feedback. While some of this training can be imparted on a short-term workshop basis and some through on-the-job training, a few members of staff would benefit from longer-term, high-grade training, especially if they are to assume responsibility for the work on a full-time basis. They also require access to appropriate computer hardware and software – and well-planned computer training.

5. This report has focused on “insider” monitoring and evaluation. It has not discussed the complementary role of external monitoring and evaluation; nor the response, in any detail, of insiders to external monitoring or evaluation. SIDA may wish to consider the balance between insider and outsider evaluation, their different and overlapping purposes and their respective data needs.? External evaluators may seek to use data collected already by internal evaluators; or, where internal evaluation is not conducted, to use data collected already for monitoring purposes. However the data required by external evaluators will almost certainly differ in terms of extent, complexity and depth from these collected for monitoring. External evaluations are frequently organised within a tight time frame, thus restricting the time available for primary data collection, and forcing evaluators to rely on available data. In many instances, these data will be inadequate to the task of external evaluation, creating an element of frustration, on the part of external evaluators.

6. The language of monitoring and evaluation is important for people’s understanding of data requirements and for the quality of data generated. Although a consultant may not have local language skills, he/she should be sensitive to the problems of language created during training and translation. Project staff with a responsibility for this work on a full-time basis need to be especially sensitive. Adequate resources need to be made available for translation and back-translation and reproduction of a range of monitoring and evaluation materials eg formats, manuals, reports. Software is now available for many non-Romanised scripts and should be incorporated into working practices wherever possible.

7. Finally, one unanticipated benefit of our large-scale objectives-oriented evaluation work has been the transfer by many lower level staff of the techniques and patterns of thought required in evaluation work to their day-to-day implementation responsibilities. As we saw in chapter 6 small-scale evaluation can generate an enhanced understanding of needs on the ground by those who are in a position to do it. When information is seen to provide pointers for meaningful action by those who have some sense of control and resources for that action, then information is assiduously sought out. Engagement in small-scale evaluation work can enhance not only the quality of future action but also the sense of professional esteem and empowerment on the part of project implementors. This, in turn, has inestimable consequences for educational development.

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ANNEX 1

The BIRDP Planning Context in 1983 and its history

Both the location and the relative lack of specificity of the objectives in BIRDP phase 1 documentation may be understood in part as a reaction to a rather specific set of guidelines presented to the planning team by the Ministry of Education. This had arisen out of a set of negotiations in 1983 involving officers of SIDA in Colombo, the Ministry of Plan Implementation, the Badulla Integrated Rural Development Project and of the Ministry of Education. Behind the scenes, politicians interacted with officials in the Ministries of Education and the BIRDP. The “negotiations” revolved around two key features of the education plan for Badulla; the first, the activities and putative objectives to be supported, and the second, the target group. Both had been redefined several times over the previous four years.

Four years of Planning: changes in donors, objectives and target groups

In their handbook on the conduct of baseline studies Freudenthal and Narrowe (1992) point to the slightly artificial description of the ‘start’ of a ‘project’ as the beginning of development and change.

Development and change and indeed specific projects and interventions have been going on to a greater or lesser extent in all places in which SIDA has been engaged. Little is really “new”.
(Freudenthal and Narrowe 1992:10)

BIRDP was no exception. Although the project ‘started’ officially during the Swedish financial year 1983/84, not only had development and change been ongoing in the Badulla district, but the *planning* of the BIRDP education component had also been ongoing for a considerable period of time.

Although the BIRDP-EC plan was funded eventually under a 1983/4 SIDA-Government of Sri Lanka agreement, its origins can be traced to 1979 long before SIDA involvement was contemplated. The main players at this time were the International Fund for Agricultural Development (IFAD) and the Regional Development Division (RDD) of the Ministry of Plan Implementation. A package of proposals covered several sectors of development, of which education was just one. Other sectors included agriculture, roads, tea small holdings and health.

TARGET GROUPS AND OBJECTIVES

One of the early outlines of the integrated rural development project defined the major problems facing education and identified two types of school with particular “deficiencies”

The (Badulla) district has a relatively low literacy rate (60%) and suffers from poor school facilities, shortage of teachers and a high drop-out rate. The estate schools and educational facilities in remote areas are particularly deficient. Participation rates among the school going age-groups are very low i.e. grade 1–5 (54%) and grade 6–9 (35%). Poor educational attainment among the population has adversely affected the employment prospects and productivity levels in the district. (RDD, MPI 1980 p 19)

However the definition of problems and the activities to be funded to alleviate them was to change course several times during the next three years. The RDD report proposed seven measures to counter the problems noted – physical facilities, teachers’ quarters, improvement of estate schools, scholarships, playgrounds, expansion of school leavers program, strengthening of top grade secondary cycle schools. Although schools in both the estates and the remote rural areas been noted for their “deficiencies”, only the estate schools were mentioned explicitly in the proposals.

In their project identification mission report, published in November 1980, IFAD maintained a focus on the tea *areas* (rather than estate *schools*) and redefined remote areas as the drier zones to the north (and extreme south) of the district, particularly the divisions of Mahiyangana and Redimaliyadda. None of the proposed educational measures single out schools in the tea or dry zone areas for special attention, the improvements of top grade schools and the school leavers programme disappear and proposals for pre-school creches appear. Teachers’ quarters, scholarships, improvements to physical facilities and playgrounds remain.

THE MINISTRY OF EDUCATION BECOMES INVOLVED

By 1981 central and regional officials from the Ministry of Education became involved in the planning process. In contrast to all the previous documentation which had defined problems, problem groups and activities/programmes to alleviate them, the Ministry of Education proposals were defined in terms of aims and linked activities/projects. Eight aims were identified:

- democratise education by increasing participation and widening access
- diversify learning opportunities for students
- improve the physical environment and health standards of students
- reinforce learning opportunities for school leavers and dropouts
- develop curriculum and intensify teacher training to enrich student learning
- motivate teachers towards a continuing effort for school development in under privileged locations
- promote the participation of teachers, pupils and community in school development
- improve organisation and managerial effectiveness in the implementation of the overall programme

Twenty five activities were linked with these eight aims. They included the provision of bicycles and “chummeries” (bachelors’ quarters), suggested as a way of increasing teacher motivation. The improvement of the teacher training college in Bandarawela was seen as a way of intensifying teacher training. The provision of food and clothes was presented as a way of democratising participation. The proposals noted that priority attention would be given to improving education facilities and access to education for disadvantaged

socio-economic groups, and redressing existing imbalances and disparities among different geographical areas within the district. Significantly however the estate sector schools, which had been given special attention in the 1980 RDD report, were excluded from the 1981 Ministry of Education report on the grounds that UNICEF was to have funded 120 estate sector schools in the Badulla District. And the schools in the Mahiyangana division of Badulla, which had been given special attention in the IFAD 1980 report, were excluded on the grounds that "it (Mahiyangana) is covered by the Mahaweli project" (a major dam and irrigation project affecting the extreme north of the district).

The target areas/schools had thus been largely redefined. So too had the emphases in the objectives and plan activities. These proposals contained a much stronger emphasis on the qualitative improvement of education through curriculum development and teacher training, teacher motivation and community participation. This emphasis on the qualitative improvement of education and learning stems, one may presume, from the fact that officers of the Ministry of Education were centrally involved in the definition of priorities and proposals.

IFAD RETREATS : SIDA IS APPROACHED

Shortly afterwards, IFAD indicated to the Ministry of Plan Implementation that its mandate to promote agricultural development did not include support for either the education or health sectors. The Ministry of Plan Implementation was then faced with the prospect of promoting an Integrated Rural Development Project with funding for neither education nor health, or of finding an alternative donor. Officials chose to seek an alternative donor and submitted the extant proposals to the SIDA DCO informally. This informal submission was responded to by an equally informal set of comments which included a "lack of clear problem identification and statement of priorities" and a feeling that the proposals were "too comprehensive". The proposal "to pay Rs 100 per month to parents charged with creating links between community and school" was singled out for comment, payments of this kind being considered an inappropriate way of promoting community involvement.

Meanwhile, life in the schools in Badulla District continued as before. Schools in remote Sinhala-medium areas struggled to retain the teachers posted to them. Few teachers were prepared to commit themselves to the long term development of a remote school, unless they had strong family reasons to be there. Their objective was to secure a transfer posting to a better school located closer to transportation routes and provincial towns as soon as possible. In the estate schools many schools continued to offer an education to up to 150–200 children crowded into one room through the services of one teacher, often untrained and sometimes not even paid. The UNICEF proposals to develop 120 estate schools, referred in the IFAD 1981 report were not to materialise and it became clear that the "Mahaweli" schools in the Mahiyangana area in the north of the district would cover only a fraction of the Mahiyangana division of the district.

Although officials in IFAD had indicated already by September 1991 their inability to support the education and health components of the IRDP, nonetheless a three-person World Bank mission was detailed to appraise all the components of the IRDP in November 1981 on their behalf. No member of the team was an education or health specialist and their recommendations were to shift the definition of target group and

project objectives once more. Their major recommendation concerned money. Whereas the Ministry of Education proposals had been costed at Rs 46 million, the World Bank Mission recommended a reduction in budget in line with a similar reduction in the health component and “the need to balance the productive and social components” in the total IFAD programme. The mission recommended further the funding of facilities and equipment for teaching science and technical subjects, additional classrooms for crowded schools, upgrading of strategically located schools with upper secondary grades, scholarships for students for backward areas, furniture, sanitation and water supply, teachers’ quarters. The final sentence of the recommendations noted that “the total project cost should include estate schools”.

The reference to balancing the “social” and “productive” sectors and the recommended reduction of expenditure on education was to haunt the education component of the IRDP for another ten years and led, time and again, to pressures to pare project activities and sometimes project objectives/aims to meet low budgets. Although the education component of the BIRDP was to demonstrate that it could spend its budgets without waste, that it could plan and manage its annual work plan and that it could utilise more money it was repeatedly pared to “keep it in line” with other components. The irony was that the PSED project which was modelled on the BIRDP education component, but was embedded organisationally within an MOE rather than IRDP structure was able subsequently to secure average school-level funding four times that secured in the BIRDP (Little 1993).

The “balance” argument was a little obscure for two reasons. First the argument was in the context of IFAD support for an IRDP. One would have thought that “rules of thumb” about appropriate amounts of financial investment in the social and productive sectors of the economy should be applied to development investments in a district regarded as whole, not simply with respect to one of several sets of investment. Second, it was clear to at least some in IFAD, SIDA and the Ministry of Plan Implementation (though perhaps not to the World Bank consultants), that the IFAD package would not include education and health and that therefore there was no pressure intrinsic to the organisation of the IFAD investment programme to keep the social sector “in line”. If a more general argument based on economic principle was available it was neither clearly expressed in documentation nor its application widely recognised.

Nonetheless, the Ministry of Plan Implementation was to urge the Ministry of Education to revise its proposals and to reduce its budget to the level suggested by the World Bank mission. The eight aims were reduced to six and the twenty five activities to twelve. Out were the aims of developing curricula and intensifying teacher training to enrich student learning; out was the aim of reinforcing learning opportunities for school leavers and dropouts; and out was the aim to involve parents in the development of their children’s schools. Retained was a statement that priority attention was being given to redressing balances between socioeconomic groups and geographical areas, though no further specification of the proposed redress was mentioned.

By March 1982 it was becoming increasingly clear that if the BIRDP was to have an education component at all then it would be funded via SIDA. This meant, implicitly, that SIDA concerns and priorities would need to be reflected to some degree in the project proposals. SIDA was already supporting a number of education programmes at

this time in Sri Lanka. In March 1982 members of SIDA's Education Division were in Sri Lanka in connection with their annual review of their support to the education sector with the Ministry of Education. The review team visited Badulla and their findings and recommendations were discussed with the Ministry of Plan Implementation. They felt that the priorities in the programme were still unclear, that more funds should go to estate sector schools, and that there should be a better balance between what they described as the "quantitative and qualitative inputs". In terms of their own guidelines for support for education in Sri Lanka as outlined in their Education Sector Analysis 1981, emphasis should be placed on basic education and vocational education/training. They also expressed a general lack of support for buildings programmes.

PROJECT PLANNING FATIGUE

By 1982 the proposals had been amended yet again by the Ministry of Education, re-costed at Rs 20 million, handed to an appraisal mission organised by SIDA's agricultural division via the Ministry of Plan Implementation, the SIDA-DCO and the SIDA Education Division. It was not surprising therefore the consultant in educational planning, working on behalf of the SIDA Agricultural Division was greeted at the Ministry of Education by a senior administrator in September 1982 with the comment "I am fed up with this project!". Three years of reports, missions, agencies, and a considerable amount of hard work by various parties – and a "fundable project" had still not materialised. A degree of project planning fatigue had set in at the Ministry of Education which was where the responsibility for the detailed planning of education proposals lay. And no respite was on the horizon.

The consultant, mindful of SIDA's general lack of support for buildings programmes, noted that the lion's share of the budget was still dedicated to buildings. She also suggested, somewhat provocatively, that support for equipment for schools (eg science equipment and audio visual aids) could not be considered as a qualitative input if a training element did not accompany its provision:

equipment is a useless asset unless it is used to enhance the teaching and learning process. Locked science cupboards, book cupboards, rusty globes, charts pinned high to the ceiling and blackboards so white you can't see the chalk are mere appendages to an otherwise empty shell of a building. Increased confidence and interest on the part of the teacher is a necessary condition for these inputs to make any difference. (Little 1982)

Moreover, in view of the integration of an education component within a rural development programme and the fact that the majority of the district's childrens' futures would lie within the district rather than outside, it seemed important to invest in that cycle of education in which the majority of the district's children would participate i.e. the primary and elementary cycle. It was suggested that the earlier focus on education in remote areas and estate areas had become blurred and that poorer and more remote electorates were likely to receive less aid per head than richer and more centrally located areas, despite the plan's statement that existing imbalances among different geographical areas would be redressed. It was also suggested that more attention be given to the qualitative improvement of teaching and learning in the primary school grades in the estate and non-estate sector, local (ie. district based) curriculum and evaluation procedures, school leavers' programmes, health awareness, and the teaching of practical skills in science, agriculture and technical subjects emphasised.

THE EMERGENCE OF CLEARER GUIDELINES

This report did not receive a warm reception at the Ministry of Education, coming at the end of a long line of “appraisals”, and recommending a “resurrection” of some of the earlier proposals and priorities which had become blurred through the spectacles of time and composition of interests (as between Ministries, donors and consultants). But the ensuing discussions, involving both the Ministries of Education and Plan Implementation, as well as the SIDA-DCO, along with the timely intervention of the then Deputy Minister of Education who was also the MP for the Vivaluwa electorate in the Badulla district, was to lead to a productive outcome – a specific set of “proposal guidelines” developed jointly by the Ministry of Education and the SIDA-DCO and the appointment by the MOE of a planning team (Annex Fig.1).

Annex Fig 1 Guidelines for the development of Phase 1 BIRDP: education component

to identify two areas (one rural, one estate) for educational (and health) development for the three year initial phase.

to examine existing programmes, project activities, structures, mechanisms and resources with a view to identifying performance shortfalls, weaknesses, problems, bottlenecks and unmet needs for the quality improvement, diversification and effectiveness of education specially in the spheres of:

curriculum design, resource material and implementation; teacher education and training; remedial teaching; classroom evaluation and evaluation; special education for the handicapped; non formal education and vocational training; non enrolment, absenteeism, repetition and dropping out; guidance and counselling; environmental sanitation; health and nutrition; community participation; provision of infrastructural facilities; organisation systems, management practices, general supervision programmes and practices;

any other work areas and activities related to development of educational systems, programmes and practices

to identify government and non government agencies and resources for the formal and non formal educational development of the two selected areas

to formulate the project proposals in operational terms covering a three year period (1983–1986) to implement the guidelines in the two selected areas

to prepare the final document, which apart from proposed activities and resources summarized in a plan of operations should also cover the following issues:

management, staffing and organisation including effective coordination with the health component and other relevant programmes and authorities during implementation

monitoring and evaluation, including impact monitoring of the programme

external consultancy inputs

reporting and donor reviews

Source: Ministry of Education 1983

The planning team comprised ten persons, selected to represent several sets of interests – those of the Ministry of Education, the Office of Education of the Badulla District, the IRDP project in the Badulla District, SIDA and the Superintendent of Health Services for Badulla. The last mentioned person was involved because SIDA was funding the health component of the IRDP as well as education, and it was felt at this stage that an attempt should be made to integrate at least the planning of two components funded by the same donor. The Ministry of Education staff were selected for their expertise and organisational responsibilities at the Ministry in the areas outlined in the guidelines. One of the Ministry team, a director of education with responsibilities in management, was appointed as the planning team's coordinator. His brief from the Ministry was to meet the guidelines, guidelines here being interpreted as a mandated work plan rather than as a guided work plan.

THE GUIDELINE'S NEGLECT OF PLANNING OBJECTIVES

Armed with these guidelines the planning team set to work over a period of two and a half months, but not before a pre-planning team, comprising some but not all members of the full planning team had met to select the areas for development. This selection was driven by a combination of political criteria and an anticipation of the donor agency's criteria of area selection of poverty and need. The two areas selected were adjacent to each other. The remote rural area selected was the electorate of the Deputy Minister of Education. The estate area was in an adjacent area but outside the Minister's electorate.

The selection was not without its tensions. The Ministry of Education was under pressure to select the Deputy Minister's electorate for the focus of the rural school development. Staff insisted that the estate and rural areas should be separate areas.. The IRDP staff favoured a concentrated area approach, preferring to work simultaneously in estate and rural schools in two areas. But the latter approach gave rise to a logistical problem. It would have meant working simultaneously in around 200 schools, which was considered to be too large a number for a pilot project. On the other hand concentration on the Deputy Minister's electorate alone would include too few estate schools. In the end, the Ministry of Education's preferred approach prevailed.

Significantly, the guidelines made no mention of plan or proposal objectives. However they did include reference in the final paragraph to "monitoring and evaluation, including impact monitoring of the programme". The lack of familiarity in the team with the idea of plan "objectives" is apparent from the following account the work of the "project formulation committee" as it developed in its second week. The extract is taken from the field diary of the foreign consultant

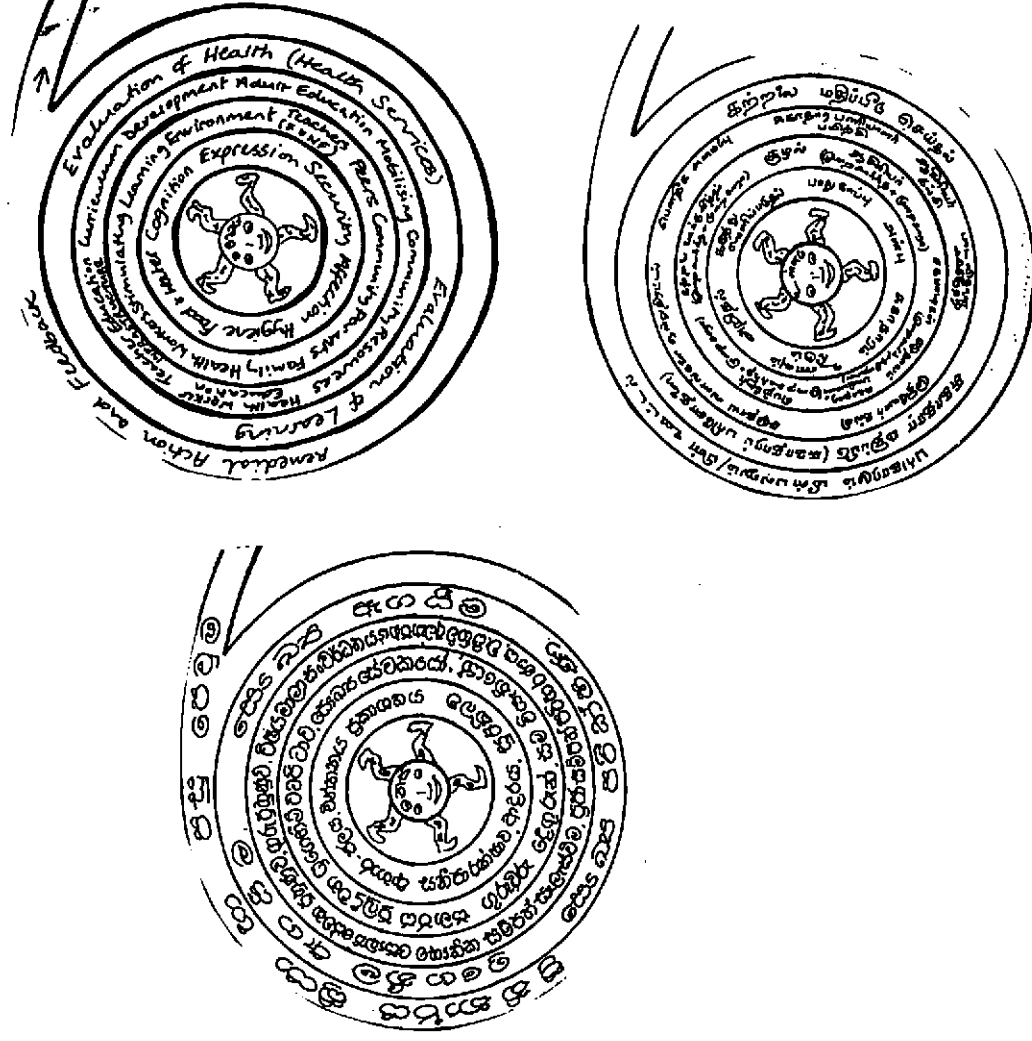
28th April 1983: An exhausting day. A long, long meeting in the morning.. but the most exhausting session was in the afternoon when we tried as a group (all the Ministry of Education officers, the two consultants and the officer delegated to take the place of the regional Director of Education) to work out a conceptual scheme for what we are trying to do. We got there in the end and one or two of the directors of education were even a little excited by what we were all trying to do. We came up with a diagram and a logo and agreed that the tasks which we would divide amongst ourselves should derive from the model. We took the child as our focus, and more specifically the development of the healthy mind of the child in a healthy body.. (this logo would eventually become the logo (in Sinhala and Tamil) displayed on the front and back covers of the "red book" plan)

29th April 1983: The PFC meets. The men (from the Ministry) had obviously been working very hard last night. They seemed worried about the TOR and the relationship which the TOR bore to the new diagram. One had developed a list of tasks and there seemed no good reason to object to it. The objective seemed to be to form more committees to produce yet more guidelines and formats. Each of the headings in the TOR – curriculum design, teacher education, dropouts, management and supervision etc were listed under each of two headings – formal education and non formal education. But we (i.e the consultants) firmly objected to the notion that a curriculum committee should develop a curriculum to be “given” to the teachers. Our view was that the curriculum is already there, and there is not too much wrong with it intrinsically. The problem is that many of the teachers do not know what it is and have never seen a syllabus.the challenge is finding ways of helping the teachers to do their job, not to dream up another syllabus and give it to them to implement. We agreed to meet again as a group in 12 days time and in the meantime to embark on a series of visits to the schools likely to be included in the plan

The diary entry reveals an element of tension between the Ministry of Education officers who wished to work very closely to the Ministry guidelines (“I don’t want to be blamed”) and the consultants who wished to create in the group a consensus over the purpose of the proposals (“what are we trying to do?”). It is interesting to note that the term “plan objectives” appears not to have been used by members of the planning team. However the logo for the project survived (Annex Fig 2) and impact monitoring was designed with some implicit objectives in mind. The Ministry men’s model dividing the work into Formal Education and Non Formal Education came to structure the final shape of the plan.

In practice of course some of the planning team members were more active in the planning process than others. Those “seconded” by the Ministry in Colombo to the exercise and granted leave from their duties in Colombo to travel to the district and engage in the planning work and the two SIDA consultants contrasted especially for this work had more time than those based already in the district. Paradoxically, regional level staff would be charged eventually with the responsibility for implementing the plan had the least time available to engage in the process. Already busy people in their regions it was impossible to leave these regional duties for intensive periods of time to engage in the planning process. When they did become involved it was usually in field visits to schools rather than in planning discussions held in the district office, where the telephone and the endless queues of people with their problems and queries always beckoned. The field visits to schools (a total of 76 schools were visited during the planning period) proved to be a most valuable site for the generation of ideas. Only a handful of these visits were made by regional staff.

Annex Figure 2 BIRDP logo: English, Sinhala, Tamil



Annex 2 Achievement Test Score Analysis recommended in Little and Sivagnanam (1992)

You will need to complete all the boxes in the table below - school name, date of test, year group tested, number tested [N], mean [m], standard deviation [sd] and standard error [se] by Male / Female / Total for language and mathematics.

Year 4 Language		Date	Male				Female				Total			
Project School s			n	m	sd	se	n	m	sd	se	n	m	sd	se
1.		1992												
		1995												
2		1992												
		1995												
etc														
Control School														
1.		1992												
		1995												
2		1992												
		1995												
etc														

Year 4 Mathematics		Date	Male				Female				Total			
Project School			n	m	sd	se	n	m	sd	se	n	m	sd	se
1.		1992												
		1995												
2		1992												
		1995												
etc														
Control School														
1.		1992												
		1995												
2		1992												
		1995												
etc														

following procedure. First, record the raw data as follows:

Student M / F	Raw Score	Class Interval and Midpoint (X _c)				
		0-10 X _c	11-20 X _c	21-30 X _c	31-40 X _c	etc X _c
		5.5	15.5	25.5	35.5	etc
1.						
2.						
3.						
etc						

To calculate the Mean for test 1 (m₁):

$$m_1 = \frac{\sum f X_c}{N_1}$$

where $\sum$ is the "sum of"
 X_c is the midpoint of the class interval
 f is the frequency of that midpoint score
 N_1 is the sample size for test 1

To calculate the Standard Deviation for Test 1 (sd₁):

The standard deviation is a measure of the degree of dispersion of raw scores around the mean score. It is regarded as an estimate of the variability in the total population from which samples are drawn (Note that although our aim is to test the entire population of school children in our sample, not all children will be attending school on the day of the test. We have to assume that the children who are absent on the day of the test is a random group with respect to the population of school children in that year group).

The standard deviation can be calculated fairly quickly for grouped data. The formula is:

$$sd_1 = \sqrt{\frac{\sum fx_1^2}{N_1}}$$

where sd_1 is the standard deviation of test 1
 x_1 is the deviation of the class interval from the mean of sample 1
 f is the frequency of observation
 N_1 is the sample size for test 1

/ To calculate the Standard Error for Test 1 (se_1):

The standard error is a measure of the dispersion of sample means. If we are to use the sample means as estimates of population means, any deviation of a sample mean from a population mean represents an error of estimation. The standard error (se) indicates the size of these estimation errors in any particular sampling situation. Whereas the standard deviation applies to dispersions of individual observations the standard error is a measure of the dispersion of sampling means.

We derive the standard error from the standard deviation and the sample size.

$$se_1 = \frac{sd_1}{\sqrt{N_1 - 1}}$$

where sd_1 is the standard deviation of test 1
 N_1 is the sample size for test 1

These statistics should be completed for the baseline data in 1992 as soon as the baseline data have been collected. They should be entered in to the data matrix and a summary report written. The report should include details about test administration (e.g. date of test, who were the test administrators / invigilators etc)

To calculate the Difference between Means ($sd.d_m$)

Once we have mean, standard deviation and standard error scores for project and control schools for both the baseline year of test administration and the 'impact' year of test administration we can examine whether there is any difference between the means in the two years.

In order to do this we need to know:

- the mean scores at two different points in time
- the sample size at two different points in time
- the standard deviation at two different points in time

The difference between means is calculated through use of a statistic known as the Z value. First we have to calculate the standard error of a difference between uncorrelated means ($sd.d_m$).

$$sd.d_m = \sqrt{sd_1 m_1^2 + sd_2 m_2^2}$$

where sd_1 is the standard deviation of test 1
 sd_2 is the standard deviation of test 2
 m_1 is the mean of test 1
 m_2 is the mean of test 2

then we use this to calculate the Z value for the difference between means

$$Z \text{ value} = \frac{m_1 - m_2}{sd.d_m}$$

If the Z value is > 1.96 we can say that the difference between means is significant at less than the 0.05 level. What this means is that this difference would occur only 5 times out of a 100 by chance. We can be fairly confident then in accepting the difference as a difference which has not occurred randomly. But please note that mean score can increase as well as decrease. We expect it to increase but experience suggests that this is not always the case. When you summarise Z-scores note the direction of the difference. Indicate increases with + and decreases with -.

Formula for Small Samples

The Z value above is appropriate when sample sizes are large. When they are small, i.e. less than 30, we suggest that you use a slightly different, and slightly simpler formula. (You may also use this even when sample sizes are greater than 30). This formula is known as the student's *t* ratio. It is very similar to the Z value.

$$t\text{-ratio} = \frac{m_1 - m_2}{\sqrt{\left(\frac{\sum x_1^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 N_2}\right)}}$$

where m_1 and m_2 are the means of the two samples
 N_1 and N_2 are the sample sizes
 $\sum x_1^2$ and $\sum x_2^2$ are the sums of squares of the deviations of scores from the means

Note however, to calculate the "sum of squares" for grouped data you need to calculate the deviation of the midpoints from the mean ($X_c - m_1$), square these deviations and multiply by their frequency of occurrence, $f(X_c - m_1)^2$. This is similar to the calculation of the "sum of squares" for grouped data in the Z value calculation. See the table below for a worked example for 4 students.

		Class Interval and Midpoint (X_c)				
		0-10 X_c	11-20 X_c	21-30 X_c	31-40 X_c	etc X_c
Student M/F	Raw Score	5.5	15.5	25.5	35.5	etc
1.	15		1			
2.	32		+		1	
3.	19		1			
4.	8	1				
Σf		1	2	0	1	
$\Sigma f X_c$		5.5	31	0	35.5	

$$m_1 = \frac{\Sigma f X_c}{N_1} = 18$$

x	$X_c - m_1$	5.5-18 =-12.5	15.5-18 =-2.5	25.5-18 =7.5	35.5-18 =17.5	etc	
x_1^2	$(X_c - m_1)^2$	156.25	6.25	56.25	306.25	etc	
$f x_1^2$	$f (X_c - m_1)^2$	156.25	12.50	0	306.25	etc	$\Sigma f x_1^2 = 475.0$

For grouped data the term $\Sigma f x_1^2$ is the same as the term Σx_1^2 in the equation for the *t*-ratio given above.

After calculating the *t*-ratio you need to read off the significance levels of the *t*-ratio. To do this, please refer to the table in the annex of this report. Your "degrees of freedom" for reading off from this table are $(N_1 + N_2 - 2)$ and you can treat this as a "one-tailed" test because you are predicting the direction of difference between the means, i.e. an increase.

Further Reading

You may wish to explore some of the reasoning behind the calculation further. Please consult chapter 9 "Significance of Differences" in J.P. Guilford and B. Fruchter, *Fundamental Statistics in Psychology and Education*, copies of which will have been made available to your project cell.

Annex 3 Twenty Questions for those involved in the internal evaluation work and the monitoring work

GENERAL:

1. Before working in these programmes what experience had you had of monitoring and evaluation work?
2. How similar/different are the (i) purposes and (ii) practices of evaluation and monitoring ??
3. How different/similar are these practices to your experience of Ministry and /or provincial office practice?
4. When you work with the concepts of monitoring and evaluation do you work with them in English or in Sinhala/Tamil. If the latter what concepts do you use?
5. The amount of money allocated to monitoring and evaluation work was always small – did this affect in any way the status of the work? If so, in what way?

MONITORING

6. In what ways (if any) does monitoring help you to perform your job better? Can you provide two specific examples? What is the single most important thing which monitoring helps you to do?
7. Does monitoring hinder performance of your job in any way? Can you provide specific examples?
8. As PD, or as officer-in-charge, or as teacher involved, have you ever seen the results of monitoring work used in discussions about future work? If so can you provide two very specific examples
9. As PD, or as officer-in-charge, or as teacher involved, what difficulties have you had in organising the monitoring work? When you answer please specify as clearly as possible the role you were in when you had these..
10. How did you overcome these difficulties?

EVALUATION

11. In what ways (if any) does evaluation help you to perform your job better? Can you provide 2 specific examples? What is the single most important thing which evaluation helps you to do?
12. Does it hinder performance of your job in any way? Can you provide specific examples?
13. As PD, or as officer-in-charge, or as teacher involved, have you ever seen the results

of evaluation work used in discussions about future work? If so can you provide two very specific examples?

14. As PD, or as officer-in-charge, or as teacher involved, what difficulties have you had in organising the evaluation work? When you answer please specify as clearly as possible the role you were in when you experienced these difficulties.

15. How did you overcome these difficulties?

EXTERNAL EVALUATION STUDIES

16. What was your experience of the external evaluation studies? In what ways were the external evaluation studies helpful/unhelpful?

TOWARDS THE FUTURE

17. If you found yourself heading up a new project in the Ministry or the Province would you attempt to initiate internal evaluation procedures? If so, why? If not, why not?

18. If you found yourself heading up a new project in the Ministry or the Province would you attempt to initiate activity-monitoring procedures? If so, why? If not, why not?

19. If you could give advice to SIDA about how best to organise monitoring and evaluation work in projects in the future what advice would you give – on procedures, training, personnel, feedback mechanisms etc

20. Have you ever followed any training courses in evaluation or in techniques associated with this work (eg computing) ? Please specify and comment on their value

The Education Division at SIDA initiates and implements a large number of studies regarding education and training, especially in SIDA's programme countries.

A selection of these studies is published in the series "Education Division Documents".

Included in this series:

No. 1-14: Out of stock except 5, 9, 12

- No. 5: "Education in Guinea-Bissau 1978-81" by R. Carr-Hill, G. Rosengart.
- No. 9: "Adult Education in Tanzania" by A.I. Johnsson, K. Nyström, R. Sundén.
- No. 12: "Education in Zambia. Past Achievements and Future Trends" by I. Fägerlind, J. Valdelin.
- No. 15: "Education in Mozambique 1975-84". A review prepared by A. Johnston.
- No. 16: "Primary Education in Tanzania". A review prepared by R. Carr-Hill.
- No. 17: "Report on Teaching of Technical and Science Subjects in Sri Lanka" by A. Dock, S. Salomonsson.
- No. 18: "Swedish Folk Development Education and Developing Countries" by J. Norbeck, F. Albinson, T. Holgersson, R. Sundén.
- No. 19: "The Indian Non-Formal Education and Feasibility Study by O. Österling, G. Melbring, U. Winblad.
- No. 20: "Practical Subjects in Kenyan Academic Secondary Schools". General report by J. Lauglo.
- No. 21: "Practical Subjects in Kenyan Academic Secondary Schools". Tracer Study by A. Närman.
- No. 22: "Practical Subjects in Kenyan Academic Secondary Schools". Background Papers by K. Lillis, C. Cumming, M. Davies, Ben Nyaga.
- No. 23: "Public Service Training, Needs and Resources in Zimbabwe" by a joint TMB-SIDA mission, N. Maphosa, E. Manuimo, G. Adersson, K-A. Larsson, B Odén.
- No. 24: "Human Resources Development in Sri Lanka". An Analysis of Education and Training, J. Löfstedt, S. Jayweera, A. Little.
- No. 25: "Skill Development for Self-Reliance. Regional Project in Eastern and Southern Africa. ILO/SIDA". Evaluation Report by M. Hultin.
- No. 26: "Technical Secondary Schools in Kenya". An Assessment by J. Lauglo.
- No. 27: "O Desafio da Alfabetização" by A. Lind with a summary in English.
- No. 28: "Study on Fishery Training in Angola" by A. Lubbock, S. Larsson.
- No. 29: "Zimbabwe Foundation for Education with Production. ZIMFEP". A follow-up Study by I. Gustafsson.
- No. 30: "Educação em Moçambique 1975-84". Uma resenha preparada por A. Johnston.
- No. 31: "A Pilot Study of Effects of Primary Schooling in a Rural Community of Ethiopia" by R. Sjöström.
- No. 32: "Adult Literacy in the Third World". A review of objects and strategies by A. Lind, A. Johnston.
- No. 33: "Education in Zanzibar" by U. Göransson.
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