

Introducing Tracer Studies

guidelines for implementing Tracer Studies in early childhood programmes

Ruth N. Cohen



About the Bernard van Leer Foundation

The Bernard van Leer Foundation, established in 1949, is based in the Netherlands. We actively engage in supporting early childhood development activities in around 40 countries. Our income is derived from the bequest of Bernard van Leer, a Dutch industrialist and philanthropist who lived from 1883 to 1958.

Our mission is to improve opportunities for vulnerable children younger than eight years old, growing up in socially and economically difficult circumstances. The objective is to enable young children to develop their innate potential to the full. Early childhood development is crucial to creating opportunities for children and to shaping the prospects of society as a whole.

We fulfil our mission through two interdependent strategies:

- Making grants and supporting programmes for culturally and contextually appropriate approaches to early childhood development;
- Sharing knowledge and expertise in early childhood development, with the aim of informing and influencing policy and practice.

The Foundation currently supports about 150 major projects for young children in both developing and industrialised countries. Projects are implemented by local actors, which may be public, private or community-based organisations. Documenting, learning and communicating are integral to all that we do. We are committed to systematically sharing the rich variety of knowledge, know-how and lessons learned that emerge from the projects and networks we support. We facilitate and create a variety of products for different audiences about work in the field of early childhood development.

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About

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About this publication

Introducing Tracer Studies is based on the experiences of studies that have followed the footsteps of former participants of early childhood programmes. Participants included children, adolescents, parents, teachers, community members, and others, followed up between three and 20 years after they had left the programme.

The Studies formed part of a pilot programme, called *Following Footsteps*, initiated by the Bernard van Leer Foundation in 1998. This programme had the dual purpose of exploring the medium- to long-term effects of a selection of early childhood programmes and developing an approach that could be used by and for programmes that do not have access to large resources and could be adapted to fit their own contexts.

The emphasis in this publication is on the approaches and methods that were used to study these programmes, which operate in very diverse settings, have varied programme approaches, target different populations, and have their own unique aims and objectives.

Reports of most of the Tracer Studies have been published by the Bernard van Leer Foundation in its series *Early Childhood Development: Practice and Reflections* under the general heading of *Following Footsteps*. Listings of relevant and useful publications are given in the appendices.

About the author

Ruth Cohen is Project Coordinator at the Bernard van Leer Foundation where she has worked since 1986. She has coordinated and managed the Tracer Studies programme since its inception in 1998 and has been responsible for publication of the reports.

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This publication exists because of the work of many hundreds of people around the world. They include the women and men who conceived and implemented programmes for young children and were then farsighted enough to want to know what had happened to them some years later. They also include the children and their parents and teachers, community members, employers, local government officials and many others who were willing to talk to researchers and thus made these Tracer Studies a reality.

Then there are some 30 or so individuals who were involved in the planning and implementation of the Studies: individuals in programmes and individual researchers. These are the people who gathered for a one-week Workshop on Tracer Studies in April 2002 and whose collective experiences, knowledge, and wisdom form the backbone of *Introducing Tracer Studies*.

A smaller number of individuals inside and outside the Bernard van Leer Foundation commented on earlier drafts of this publication, and all their comments were greatly appreciated.

Most of all, I want to thank the people from the Bokamoso Preschool Programme in Botswana. In 1993 they decided to follow up all the graduates of their preschool programme and they called their study a Tracer Study. It was the 1995 report of that study that inspired the Bernard van Leer Foundation's programme of Tracer Studies, not just because we found the notion of tracing a good one, but because their report showed us how much can be learned and built upon from such a qualitative exploration.

Thus, far too many people to name here, but I thank them all for their contributions, their expertise, their willingness to share and to learn, their openness, their insights, their company in person and electronically, and their inspiring enthusiasm for their work and mission.

Ruth N. Cohen

January 2004



This publication brings together what we at the Bernard van Leer Foundation have learned over the past few years about how to implement Tracer Studies. It is an initial exploration rather than the last word, and one of the objectives of publishing this Introduction now is to share what we have learned with a wider public so that others can build on this experience.

The Bernard van Leer Foundation is not a research organisation, and although these studies are a form of research, they do not fit neatly into any currently accepted research category. The name ‘Tracer Studies’ is one we chose because it encapsulates the process and methods of tracing those with whom we worked in the past.

We and our partners know that the early childhood programmes we help to support bring benefits to the children involved as well as their families and the surrounding community. Yet there have been questions about the durability of those benefits and the extent to which they last beyond the period of participation in the programme. The Foundation’s mandate directs us to enhance opportunities for children between birth and eight years of age who are growing up in circumstances of social and economic disadvantage *with the objective of developing their potential to the greatest extent possible*. In 1998, after more than thirty years of supporting early childhood programmes, we decided to implement a pilot programme of studies that were directly related to this objective. We wanted to find out whether some of these programmes had indeed developed the potential of the children in ways that were affecting their later lives at school, in further education, in employment, in the community, and as well-adjusted human beings who were motivated to achieve.

A major consideration for us was the need for data on the effects, and effectiveness, of early childhood programmes outside of Western countries.

Much of the practice in early childhood has been based on theories developed in the West, and research findings have come from longitudinal studies carried out in industrialised countries. Such studies are expensive and, by their very nature, long term. We were looking for another form of research, one that would be achievable by smaller programmes that did not have access to vast resources, and which could be adapted and moulded to fit local needs and capacities.

Tracer Studies were not invented by the Foundation. Instead, we made connections between the ideas and methods of a handful of studies that we knew about in 1998, and used them as a basis to design a pilot programme around a set of fairly open parameters that were used to encourage early childhood programmes to undertake similar studies.

In some ways, the most exciting outcomes from the studies were that they gave us insights into aspects of programmes that we did not even know were there, and they showed in very real ways the kinds of changes that early childhood programmes can make to the people involved. For those who carried out the studies, the process has been an opportunity to gain a deeper understanding of effects and impact and, where a programme still exists, to adjust and develop it. There have also been effects that spread beyond the original programme and, in some instances, both policies and practices of services outside the programme have been adapted.

Although each of the studies is distinct, most share a number of common features:

- They follow up the progress of the children, their families, programme staff, the communities or the organisations, five or more years after they participated, to find out how they are faring.
- They are generally small in scale (tens rather than hundreds of respondents) and short in duration (months rather than years).
- They are primarily qualitative rather than quantitative in nature.
- Each is designed locally and overall control is in the hands of the programmes, even when the study is undertaken by independent outside researchers.
- The emphasis on qualitative methods and the use of quotations means that the reports help readers to get to the ‘story behind the story’.

- The methods used are understandable for virtually all those involved in the study.
- The studies are manageable in a wide variety of circumstances.

This kind of study represents a practical tool that allows programmes in the field to look more deeply into their own work. This is especially so because they are locally determined and controlled. As one correspondent put it, *‘This has inspired us to think about our philosophy and ask ourselves: how do we recognise change?’*

There are a number of characteristics that distinguish these studies from conventional academic research. One is that a Tracer Study starts from the objectives, goals and context of a programme and sets out to learn from what is there – especially from the kinds of personal outcomes that participants reveal.

A second characteristic is that the mass of information that results is often of immediate use: knowing about its actual impact on people can be directly related to the conceptualisation and operation of a programme, changing or refining how effectiveness is perceived, modifying or adding to the programme’s objectives, and perhaps fine-tuning programme content or changing the ways in which it is structured and run.

A third distinctive characteristic is that a Tracer Study is programme-led and focused on those who were meant to benefit – and this is despite the fact that most of the Studies were implemented by external researchers.

As David Weikart said in an article he wrote for us last year, the tracer studies present both an opportunity and a challenge for the broader field of educational research. Shortly before his death in December 2003 he gave permission for us to reproduce that article as a preface to this publication. We had asked for that permission because we felt that what he had written neatly and accurately summed up the conundrums of undertaking community-based studies in the majority world. David was one of our inspirations for the Tracer Studies programme (one of the first studies followed up a programme our foundations had worked on together in the 1980s) and he accompanied us on our journey of exploration into this new approach. We will miss him greatly in the coming

years, as will the many children, families and organisations around the world to whom he dedicated his working life.

In this same spirit of sharing, learning and building new knowledge, we encourage other organisations to take the ideas, principles, methods and approaches described in this publication and apply them in their own contexts. Those contexts could be early childhood programmes but they could as easily be other community-based work that is aimed at different sectors of the population. We will be interested to learn what happens and hope that you will send us your comments and suggestions and experiences.

At the Bernard van Leer Foundation we will use and learn from the methods and the findings of the studies to help with planning, developing and monitoring programmes. We know very well that being in an early childhood programme is not a vaccination against all future setbacks for a small girl or boy being brought up in a slum or a marginalised community or during a time of civil conflict or in any of the other disadvantaged circumstances in which too large a proportion of the world's children are trying to survive. But by using Tracer Studies in strategic ways, and by sharing the learning and encouraging our partners and others to do the same, we can do our best to give those children the physical, intellectual and psychological strengths to develop their potential to the greatest extent possible.

Peter Laugharn,
Executive Director
Bernard van Leer Foundation

January 2004



The tracer studies present both an opportunity and a challenge for the broader field of educational research. Internationally, the need to find effective means to support children and families, especially those living in poverty, is widely recognised. These studies offer important information.

An opportunity

Tracer studies represent an opportunity for many of the right reasons. First, the projects represent diverse geographical locations and cultural settings serving a wide range of individuals in very different countries. Too often our ideas about what services should be provided are driven by information generated in the industrialised world. This fact is a natural result of vast resources and large numbers of well-trained staff available for educational projects. However, even for the industrialised world, verification of educational approaches or service processes is required. The tracer studies step into the complexity of settings that stretch and test a broad range of service ideas in new ways.

Second, the projects are fundamentally democratic, a trait increasingly seen as an essential ingredient of any modern society. The projects these studies examine are usually focused on community members discovering ways to help others in their community. This approach is one of empowerment and entitlement. All people respond better when they can see that the product of their effort is accepted and respected. This dimension of the tracer studies establishes their leadership for the broader field of research and educational evaluation.

Third, the studies look at project participant outcomes over time. Too often, the development of information stops at the end of the service component of the project for participants. Looking at outcomes over time is a very important step in the process of separating those approaches that actually change

circumstance from those that simply enable some event to occur earlier in time. The tracer studies ask difficult questions regarding effectiveness of services that the broader field of research and evaluation often overlooks..

A challenge

Tracer studies are challenged by the mainstream field of research and evaluation. The field's accepted research standards tear at the fabric of the work to date. First, most of the tracer studies have not developed an adequate sample size, nor have they undertaken random selection and assignment. Without meeting these basic criteria, the information generated is interesting for developing ideas and suggesting lines of thought, but offer little guidance to shape public social or educational policy.

Second, many of the tracer studies focus on programme ideas undergoing development, making it unclear just what the specific service or approach actually was. Policy can only be built around information from stable programs. New programmes that are in constant change, as they rightly respond to the experience of delivering services, are not good candidates for policy information because it is unclear what aspect of the project is actually being evaluated.

Third, when project ideas are new, it usually means that instrumentation to assess the project outcomes has yet to be developed. While interviews with participants and judgments by project staff are especially vital for the development of a new service, such data are highly suspect as outcome information. Much of the information presented in the tracer studies, from the initial phase of the project as well as the follow-up phase, comes from such interviews and judgements. Of course, that does not mean that it is always safer to use traditional outcome assessment approaches: are they standardized for this specific population? Is translation of instruments or training procedures involved, and who checked the new forms for accuracy? How were the trial field tests of the instruments conducted? In short, the tracer studies have tackled a very difficult problem indeed, but for the findings to be meaningful, there must be answers to these questions.

The contribution of tracer studies to educational research and evaluation

All that said, however, there are many lessons generated by the tracer studies, and the broader field of educational research and evaluation can learn extensively from them. From my point of view one of the most important lessons is from the new community or educational service patterns. Working on limited budgets and often short staffed, these projects have explored new patterns of enabling individuals to meet and overcome problems.

Another lesson of value from the studies stems from their diversity: diversity in methods of service; diversity in culture and language of participating groups; diversity in economic development of the community; and diversity in ethnic composition. These studies are not ‘poor cousins’ to the large scale, well-financed studies in affluent countries, they are storehouses of improvisation and resilience in the demanding daily lives of communities. Thus while educational research and evaluation usually demand clarity of project operation and project outcomes, these studies offer complexity and a wealth of information about actual day to day work with people. With this initial information, future projects can be more fully implemented and evaluated with more traditional standards.

The point is that to innovate, deliver, and document effective programmes is a difficult task. The tracer studies encompass a wide range of diverse efforts which can provide intellectual building blocks for newer undertakings, if we can only learn to build on the old while attempting the new. The availability of such studies to the broader field of research and educational evaluation moves forward the potential of knowledge about high quality service .

This preface is adapted from an article written in early 2003 and is reproduced by permission of the late David Weikart. David P Weikart was the Founder, President and Chairman of the Board (1970-2000) and President Emeritus (2000-2003) of the High/Scope Educational Research Foundation, Michigan, USA.



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A Tracer Study is another name for a follow-up study. We have used the word ‘tracer’ because we are discussing studies that have traced children, their families, the workers, the communities or the organisations some years after they participated in an early childhood programme to find out how they are faring. The studies attempt to find out whether anything has remained from a programme that, several years earlier, tried to influence people’s lives.

To the man or woman in the street it seems fairly obvious that a small child whose health and nutrition and material needs have been attended to, who has been stimulated and given loving care and attention, is more likely to do better in school and later life than the child who has not had such benefits. This is the basic premise on which many early childhood programmes are based, but very few programmes have tested whether the facts fit the theory.

The studies discussed and presented here have tested the theory and have tried to find out what kind of people the young children have turned into – how they have adapted to formal schooling, whether they are healthy, if they are growing into well-adjusted citizens who enjoy life, whether they are motivated to succeed in whatever they aspire to. And, where applicable, the studies have also looked at the parents and community members and the people who ran the programmes and cared for the children to find out their views and attitudes. Wherever possible, the researchers of the studies have related the findings to the original programmes and drawn conclusions that could have an impact on current programmes as well as on wider policy and practical issues.

How these studies came about

These kind of studies were not invented by the Bernard van Leer Foundation. Instead, we made connections between the ideas and methods of a handful of studies that we knew about at the time (in 1998) and, from them, designed a

set of fairly open criteria that were used to encourage some other early childhood programmes to undertake similar studies. We saw this as a pilot exercise in which methodologies could be explored and developed and, while we were hopeful, we really had little idea of the outcomes. As part of the learning, we brought together the people involved in the studies, both researchers and programme people, at a Workshop in April 2002 in Kingston, Jamaica, in order for us to exchange and evaluate our mutual experiences and to see what, if anything, we could share with others. The experiences, ideas, advice, guidance and quotations that you read here are based on the Tracer Studies that have taken place, correspondence and conversations with the people concerned, and the discussions at the Workshop.

This Introduction to Tracer Studies is primarily aimed at people who are considering implementing a Tracer Study, whether they want to do the study themselves or to commission one. This could include people in development programmes and those working in funding and support agencies whether national, international or multilateral. The publication concentrates more on the methods and processes than on the content and outcomes and will also be of interest to those in teaching and research organisations. Although the examples here are largely based on early childhood development (ECD) programmes, the principles and methods would be applicable to other areas.

We know that we at the Foundation do not have all the answers and our main aim with this publication is to stimulate the questions that need to be asked in order to arrive at a study that fits the context and the time and the resources available. Or, indeed, to decide that a Tracer Study is not what is needed.

The studies and the programmes

The table on pages 26-29 summarises nine of the studies that were complete at the time of writing. The studies took place in Botswana, Colombia, Honduras, Ireland, Israel, Kenya, Jamaica, Trinidad and the USA and they were all designed and carried out locally.

Of the programmes studied, some were originally supported by the Bernard van Leer Foundation, others were not. Some of the studies were commissioned by the Bernard van Leer Foundation, while others were not. Each of the programmes studied is unique, and they are implemented by locally based

partners. Their objectives are concerned with developing and improving the lives of children and their families and communities in the here and now, based on the belief that this will lay the foundations for improved opportunities in the future.

These are action projects that are operating in disadvantaged communities and were not conceived or implemented as research studies. With the exception of one study (in Ireland) the children were not initially randomly assigned to ‘treatment’ or ‘control’ groups, and participants have not usually been subjected to tests or other research instruments. Because each of the programmes studied is different in its target group, in its context, and in its strategies, the methods used to trace former participants and discover their current status are almost as varied as the original programmes and it is this richness that we aim to convey in this publication.

From the discussions during the Tracer Studies Workshop, it was apparent that the people who run the programmes that were studied felt that they had learned from the experience. Specific areas that were mentioned included a deeper understanding of the people they were working with – their capabilities, their aspirations – and a definite recognition, or reminder, of how essential it is to be inclusive (for example: a focus on children should not ignore the mothers, and so on). The need to frame research questions had stimulated deeper thinking about the objectives of their work and the strategies used. Some said that they had become even more aware of the communities and services around them and how, in some cases, these were letting down the former participants (by, for example, poor schools, lack of employment or training opportunities). Where quantitative data were used, such as costs or substantial numbers of children, and presented in acceptable ways to authorities, it seemed that these had led to changes in attitudes and even in policies.

Tracer Studies and research in general

Tracer Studies are not a new methodology, they are an approach that can be used to find out more about a programme and its participants. A Tracer Study, as described here, is a relatively short exercise that can be inexpensive compared to many other kinds of research. It is also easy to understand and easy to explain to all the participants. Like all research, such a study cannot **prove** that any outcomes found were a direct result of the programme, it can only support

an assumption. A Tracer Study can, however, indicate trends and directions that can affect programming and policy.

Most of the studies mentioned here have been done retrospectively, that is, the study was thought of afterwards and not planned from the beginning of the programme. This is one of the aspects that differentiate a Tracer Study from a longitudinal study where the decision to do the study is taken when the programme begins, the potential participants are usually assigned at random into a group that will be in the programme and a group that will not (the 'control' group), and follow-up of both groups is planned and undertaken at regular intervals such as every year, every five years or whatever. There are several examples of such studies, most of which have taken place in industrialised countries (see also Appendix Two). One of the best-known of these is the Perry Preschool Study undertaken by the High/Scope Educational Research Foundation in the USA which has also undertaken one of the Tracer Studies discussed here.

Many programmes regularly evaluate their work or specific aspects of it but evaluations frequently concentrate more on managerial aspects and implementation than on outcomes for the participants. Surveys are useful to assess conditions or measure opinions; case studies can give an in-depth account of a specific aspect of the programme; reviews might give an overview with recommendations for future action. The reports of such efforts can all be useful background for a Tracer Study – or even be part of it (see Methods pp 53-66).

Deciding what type of research to undertake depends on needs as well as on costs, opportunities, resources and the timeframe.

Deciding what type of research to undertake depends on needs as well as on costs, opportunities, resources and the time available.

What is to be traced?

To carry out a Tracer Study, a number of questions need to be answered. The following is just a first set of questions.

- What are the objectives of the study?
- Is the whole programme to be studied or just one aspect of it?
- What will be the gap (that is: how many years?) between participation in the programme and the follow-up study?
- Will it be possible to trace a majority of participants? That is: is/was the record-keeping system good enough to find them and/or is this a location with a fairly stable population?
- How many former participants will the study include?
- Does there need to be a comparison group included in the study in order to compare findings between programme and non-programme informants?
- What resources are available for the study in terms of timing, money, personnel and so on?
- Who is going to design the study?

When to do a Tracer Study

It is not always easy to know the best time to undertake a Tracer Study. Obviously, some time has to have elapsed between people leaving the programme and tracing them. But which people should be traced? If the programme went through a pilot or developmental phase when several methods were being tried and tested, there may be no point in following up those who were part of a pilot that has since been discarded or improved upon: it would not represent the 'best' of what the programme has to offer.

At the Foundation we decided that there should be a minimum of five years after participation for any studies that we supported. This was partly because we felt that it was a reasonable period to measure medium-term effects or impact, and also because we knew that the children who had been in a programme, even if they were then infants, would be old enough to tell interviewers about themselves and their lives. For us, the inclusion of the children's perspectives was important. But some of the Tracer Studies mentioned here had a shorter gap (for example, one to four years in Botswana), while others were much longer – up to 20 years in Colombia.

The important rule might be to ensure that the programme keeps good enough records from the very start so that tracing will be possible as and when it is decided to do so.

When might a Tracer Study be useful?

Within early childhood programmes, regular evaluation can help to check on progress and assess immediate or short-term impact on participants. But it is also important to know whether there has been any longer-term impact on the children some years after they left the programme and are in a very different environment. Tracing them, talking to them and their families and teachers can bring new understandings about the working of the ECD programme.

Sometimes there is a need for a broad research approach that uses a variety of methods. In this instance, a Tracer Study is complementary to other research approaches. There could be a need for a deeper understanding and knowledge about a specific aspect of the programme; a Tracer Study could be the ideal tool to explore this aspect with former participants and other respondents.

When a programme is trying to make a case for further funding or dissemination, a study that demonstrates a continuing impact on participants some years after they were in the programme can be a useful contribution to the argument:

We wanted to demonstrate changes. We are working in lots of programmes in different places in the world and wanted to disseminate the experiences.

We needed information to demonstrate impact. (researcher, Colombia)

A quantitative approach, using figures about costs or about people for example, can help to convince potential supporters, other organisations and services and funders. A qualitative approach can give very real insights and put a human face and voice to the needs, problems and solutions. Both of these approaches (particularly when they are used together) can show gaps, indicate trends and demonstrate change over time.

When might a Tracer Study NOT be useful?

A Tracer Study will not **prove** anything. It is usually impossible to say with certainty that a particular outcome was the effect of the programme because the study design and methodology do not allow the researchers to make cause-effect statements.

On its own, a Tracer Study cannot provide a complete and comprehensive picture. A Tracer Study of a programme or situation that no longer exists or has changed radically could be debatable where resources are scarce. While there is always something to learn from these studies, it would be appropriate to question the potential for applying that learning to practice, to policy and to theory.

Principles and guidelines

Much of what follows is based on the principles and guidelines that were compiled during the Tracer Studies Workshop in 2002 by the 30 people who had implemented studies. Some of these suggestions were made because of what they did do, and others because there were things that they felt, with hindsight, they should or could have done.

Principles and guidelines for doing Tracer Studies

Based on the experiences of people who have been involved in Tracer Studies

Early planning

- Develop the strategy for undertaking a Tracer Study at the same time that the programme is being developed; this includes the budget
- Ensure that record-keeping is accurate and complete and that the records are not thrown away
- Document the situation from the time the programme begins (take 'snapshots' in words and pictures)
- Identify clear impact indicators – they should be observable and measurable
- Put the Tracer Study within a wider evaluation/research strategy of the project
- Take into account that each phase of a programme is different – tracing children who were involved in a pilot/developmental phase may not yield the same results as tracing the later programme
- Note that not all designs have equal value – you may need to have hard data to impact policy
- Bear in mind different purposes/audiences/methods/budgets

Commissioning the study

- Define who will lead the research – background, compatibility with the project, cultural sensitivity

- Look at the pros and cons of outsiders and insiders – a combination of both may be of value

Analysing and reporting

Remember:

- Experience and emotions are hard to represent, but they are important to capture
- Human beings cannot be reduced to a formula or a picture painted by another person
- Interpretation is as important as the quantitative/qualitative distinction
- Retrospective studies may or may not be reliable, so understand that there are limits to these kinds of data

Who? Why? How?

Immediately following this introduction is a table summarising nine of the Tracer Studies that are the basis of this publication: this includes **who** the programmes were for and who did the research as well as how and why the Studies were undertaken. Chapter Two includes examples of findings from these Studies and discusses impact in the context of **why** it might be useful to conduct a Tracer Study.

The following chapters and sections are about the **how** of Tracer Studies. They take the reader from first definitions and questions about Tracer Studies, through the questions, discussions and issues that arise during a study, to analysing, reporting and using the findings and outcomes to influence practice and policy.

Although these chapters are arranged in a more-or-less logical sequence of the stages that a study needs to go through, the reader should not be misled. Despite assumptions to the contrary, research is not a linear process – it can be very untidy and messy and frustrating and full of surprises both pleasant and unpleasant. The best laid plans can go astray, but that is no reason for not planning as best as you can!



Summary Table Tracer Studies mentioned in this publication

Country	programme studied	about the study	researcher (s)
Botswana	Bokamoso Preschool Programme, a training and monitoring programme for San children in isolated settlements	a comprehensive study of the programme carried out 1993-1995 with additional information to 2001	Bokamoso team members who were initially guided by an outside researcher
Colombia	PROMESA, run by CINDE, aimed at children and communities in a remote coastal area to improve physical, emotional and intellectual development	the study was a continuation of a longitudinal investigation that began in 1978; originally quantitative, this study is based on interviews carried out in 1999 and 2001	staff of CINDE
Honduras	Early Stimulation Programme run by Christian Children's Fund, Honduras (CCFH) aimed at children aged 0-6 years and their mothers	a study, in 2002, looking at the impact on children aged 9-10 years	external researchers
Ireland	Community Mothers Programme, a home visiting programme in Dublin aimed at first time mothers during the first 12 months of the child's life	a follow-up study in 1997-1998 at age 8 years of earlier research in 1990 at age 12 months	researchers from the Health Authority and University in collaboration with programme staff
Israel	Parents' Cooperative Kindergarten run by Almaya in 2 areas of Beer-Sheva for immigrant families of Ethiopian origin	the study, carried out in 2000-2001, aimed to find out what had happened to children who had participated in the programme 1988-1990	an external researcher who has undertaken evaluations and other research for Almaya
Jamaica	Teenage Mothers Project (TMP), a full-time 18-month programme aimed at teenage mothers and their infants in a rural area	the study, in 1999, traced the impact of the TMP on mother-child pairs some 10 years after participation	an external researcher
Kenya	Embu District Centre for Early Childhood Education (DICECE), a 2-year preschool teacher training programme that is part of a national programme	a study in 1998-1999 looking at the effects of training for preschool teachers on the children they had cared for	researchers from the Mwana Mwendu Child Development Trust, both of whom had previously worked in the national training programme
Trinidad	Adolescent Development Programme (ADP), run by SERVOL, addressing social, emotional, and psychological needs of 16-18 year olds	the study, in 1999, looked at the effects of participation on former ADP trainees some 10 years after completion	an external researcher
USA	Parent-to-Parent (PtP) Dissemination Programme (1978-1984) in which a common open framework was implemented by 7 agencies targeting varying populations	a study in 1997-1998 to search for evidence and influence of PtP principles and strategies	researcher employed by High/Scope Educational Research Foundation – the original implementing organisation

Summary Table Tracer Studies mentioned in this publication

Country	sample(s)	why we did a Tracer study	whose agenda was it?
Botswana	172 children who had been in preschools and were traced in Stds 1-4 in 7 primary schools	we wanted to know if the work was useful, were we affecting the dropout rates? could we counter the scepticism we met?	the programme's
Colombia	80 mothers and 39 promotoras (who had implemented the programme) who had been in the programme 1978-80, and a selection of their (now adult) children	it follows on from 20 years of collecting data, we wanted to demonstrate change and impact	the programme's
Honduras	10 children and mothers who had been in the programme from 1995 and a matched group of 10 child/mother pairs from another village where the programme was about to be implemented	to understand better the effects and impact of the Early Stimulation Programme in order to strengthen and better define strategies as the programme is implemented in new communities	the programme's
Ireland	76 mother-child pairs representing one-third of the original randomised controlled sample; 38 from the intervention group, 38 from the control group	we wanted to demonstrate the effectiveness of our approach, to see if the work continues to have an effect after some years	ours, we were trying to convince the Health Board to take a new approach
Israel	the intervention group comprised 37 young people aged 12-17; a comparison group comprised 34 matched young people; these were all of Ethiopian origin while a third 'non-Ethiopian' group of 25 young people was also interviewed	to find out how the children from this very distinctive group have fared	the impetus came from BvLF, the study was designed locally
Jamaica	20 mother-child pairs, 10 of whom had been in the TMP and 10 who had not	we wanted to know what had happened to the mothers and the children	the impetus came from BvLF, the study was designed locally
Kenya	913 children from 3 cohorts (1991, 1992, 1993) were tracked in 12 primary schools, of which half had had trained preschool teachers, the other half untrained	it is a training programme and people always talk about the teachers; after 30 years' work we wanted to see what was happening to the children	the programme's
Trinidad	21 men and 19 women from 4 different ADP centres; outcomes were compared with 18 men and 21 women from the same areas who had not been in the ADP	we wanted to know how the programme had impacted life choices	the impetus came from BvLF, the study was designed locally
USA	four sites selected for diversity in terms of client population, agency type, programme and community size; interviewees were original participants and staff of current programmes	to find out if there could be any traces left from programmes nearly 20 years after the event	ours and BvLF's

Summary Table Tracer Studies mentioned in this publication

Country	what audiences were being aimed at?	how did the study fit other research/ evaluation activities?	what are the uses of this approach?	what were the limits of this approach?
Botswana	ourselves, the communities, the teachers; we didn't think about dissemination when we started	none of us were researchers, we had an open agenda, allowed ourselves to be informed by the process	we used the results to improve the programme, to work with primary schools	the official records were unreliable, this study couldn't give overwhelming proof
Colombia	other projects in other parts of the world, funders	it fits our whole package of evaluations and our work in the Effectiveness Initiative	the research began as quantitative, it took a long time to see change in indicators; this last part has been qualitative	
Honduras	the implementing organisation, donors	it complemented our work in the Effectiveness Initiative	the results are encouraging and are helping us to define our programme further	
Ireland	parents and the Health Board, it is good to share it with a wider audience now	the programme has been evaluated from the start but this was independent of other studies	the results have contributed to policy changes	
Israel	the implementing organisation	the programme has been evaluated from the start but this population has been over-researched	we found that the programme had made a tangible difference to children's lives	so many data were gathered – how can this be handled?
Jamaica	donors, the parish, the media	it was a good follow-up to our earlier research	we were able to find new kinds of information because of the qualitative approach	subjectivity, lack of a 'pure' comparison group
Kenya	government, policy makers, funders, communities	there has been much research and evaluation but mostly on processes	many of our findings were unexpected	the long interval between the children leaving the programme and the study – so many other variables have intervened
Trinidad	ourselves, donors, government, community	our other evaluations have been descriptive	we could see the effectiveness of the programme	attributing change when so many other things happen
USA	primarily High/Scope and BvLF, possibly policy makers, teacher trainers	we have been able to combine the findings with earlier work in a new publication	we were quite surprised to find as many traces as we did, suggesting durability of intense training	there have been many changes in the context over the years, especially mothers entering the labour force

Summary Table Tracer Studies mentioned in this publication

Country	findings
Botswana	children who had been in preschools were mostly still in school; many parents were supportive; dropout figures were lower than assumed; main problems for the children were the language gap, use of corporal punishment, lack of cultural understanding; it was seen that the contrast between pre and primary schools can create animosity and tension
Colombia	in 2001 children of promotoras had an average of 10 years schooling, compared with a 1989 average for the area of 6.3 years, and 3.5 years for their own mothers; the promotoras expressed competence and self-confidence and were leaders in the community; there were many improvements to general health and the environment as well as general economic improvements
Honduras	primary school teachers observed that the programme had helped children to develop academically and behaviourally in comparison to those who had not participated; the CCFH children were more developed socio-emotionally than the comparison group; they were healthier; their homes were cleaner, tidier and more hygienic, family relationships were more horizontal and respectful
Ireland	almost all the variables measured favoured the programme group: immunisations, nutrition, children's attitudes to school, homework, reading, mothers' attitudes towards childcare and discipline and their self-esteem as well as effects on subsequent children; the study concludes that the changes in childrearing practices found in 1990 were sustained seven years later
Israel	it was evident that the intervention children were essentially different from their Ethiopian-origin counterparts and closer to the Israeli norm; this could be seen in tendencies towards individualism, abilities to express emotions and needs, responsible behaviour patterns, and acquisition of the 'tools' that could enable them to better integrate into Israeli society
Jamaica	the TMP mothers were all employed and most had pursued further education and training; they were more self assured with a greater sense of control over their lives than the comparison mothers; the latter had given birth to more than twice as many subsequent children; the TMP children were given higher ratings by their teachers than comparison children
Kenya	children who had been with trained preschool teachers made the transition to primary school more easily than the others; when the quality of the primary school was taken into account, the relationship between teacher training and children's academic performance was evident: children whose preschool teachers were trained did better than children whose preschool teachers lacked training; all children were affected by high repetition and dropout rates, as well as alcohol, drugs, child employment, poor male role models, and changing lifestyles, value systems and moral codes
Trinidad	the ADP gave former trainees greater confidence, self-awareness and self-esteem, enhanced their parenting skills, increased their level of tolerance towards others, improved their communication skills and relationships with their parents; members of the comparison group were generally performing at similar levels in their employment and life in general
USA	although none of the original programmes are still in existence, and there were many other intervening factors, several aspects of the philosophy and principles are evident in current programmes and many former participants remain active; with present welfare restrictions there is a large unmet need for quality child care yet the needs of children often get overlooked



What happens to children after they leave an early childhood programme? Are there any long-term effects that can be traced five or 10 or even 20 years later? Is a nine-year old girl different because she was in a programme when she was four and five years old? Does a 12-year old boy benefit because his mother was in a parenting programme when she was an adolescent? Do people really change because they participated as parents, or were trained to work as caregivers, in an ECD programme? Is it possible to say that participation in such a programme has helped individuals to develop their potential and enhanced their future possibilities?

These are just a few of the questions that a Tracer Study can explore. The people who ran the programmes that were studied knew that the children benefited during the time they were in the programme, but they wanted to know more: they wanted to find out what had happened afterwards, and they wanted to know whether it was possible to link outcomes with the programme itself.

The main emphasis in this publication is on the process, or how to do a Tracer Study. But it is also important to know why it might be useful to do a Tracer Study.

What is the impact of an early childhood programme?

Impact in this context is about change and about effects and, where Tracer Studies are concerned, it is about whether changes have taken place some years after people were part of a programme, what these changes have been, and about effects that have lasted.

The quotations below are taken from eight Tracer Studies that took place in eight different countries. These studies all traced former participants of programmes that worked with specific populations in a diversity of socio-

Chapter two Why do a Tracer Study?

economic settings. The strategies used varied according to the objectives of the specific programmes but what they all have in common is that they were working with children and families in very disadvantaged circumstances. The studies that traced the former participants sought to answer a variety of questions, and what follows are a selection of some of these questions and the responses that they engendered.

The questions are fairly typical of the concerns that any early childhood and/or community programme may have. The responses might confirm our intuitions, or they might surprise us, but they all illustrate some of the invaluable insights into the impact and effects of programmes that can be revealed through such a study.

Education:

- are the children in school?
- how did the children cope with the transition to primary school?
- are the children's school performances at the expected levels for their age and ability?
- are these children performing better or worse or about the same as children who were not in the early childhood programme?

The proportion of children with untrained teachers who dropped out at Standard 1 was six times that of children with trained teachers. (Kenya)

The early stimulation programme component put the babies ahead of their peers developmentally ... this superior performance has been sustained to the upper levels of Primary and All Age schooling. (Jamaica)

Primary school teachers observed many characteristics that differentiated those children who had been in the programme from those who had not. These included their knowledge and use of language, ability to learn, punctuality, responsibility, sociability, ability to communicate, hygiene. Their teachers are convinced that it is the programme that has helped these children to develop academically and behaviourally, in comparison to children in the same school who were not in the programme. (Honduras)

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Health and nutrition:

- have the children received all the inoculations appropriate for their age?
- do they get ill more or less frequently, or about the same as children who were not in the programme?
- have they suffered from preventable illnesses or diseases?
- are they clean? do they have good habits of hygiene?
- is their food intake generally nutritious?

The children's physical health improved, they were growing taller and heavier and the vaccination rates reached 95 percent. Nutrition improved. Mortality rates for infants and children under five dropped from the highest in the country to the national average. (Colombia)

There were significant differences in the number of infectious and contagious illnesses between the children and families in the two groups. For the programme group, this was a result of health monitoring and a better understanding of hygiene – homes were cleaner, water was treated, garbage was disposed of, latrines were used ... Children in the comparison group were ill more frequently than those in the programme group. Their homes were less hygienic, drinking water was not treated, animals were in and around the houses, excrement and garbage were not cleared. (Honduras)

The nutritional intake of children in the intervention group was consistently better than the control group for particular food groups. (Ireland)

Behaviour:

- do these children pose behaviour problems to their parents? their teachers? neighbours?
- do they behave responsibly at home? at school? elsewhere?

It appears that the intervention mothers in the follow-up study had, from their experience in the Programme, developed good strategies that could also help them and their children deal with conflict in the future. (Ireland)

The absence of fathers from home, through employment away from home or by idling in the market places, often leaves the total burden of disciplining the children

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to the mothers. Women have many chores to perform and therefore may not have enough time to spend interacting with and guiding children. Also, women may find it difficult to guide adolescent boys because of cultural beliefs that disciplining and guiding adolescent boys should be done by men. (Kenya)

The intervention group children perceived themselves and were perceived by their parents as more mature than the children of the comparison group. It is possible that the parents' greater confidence in their ability to educate and to provide for their children enabled them to give their children room for independence and responsibility, which the children took on and developed into a more adult and responsible behaviour pattern. (Israel)

Effects on adults:

- do parents who were part of a programme believe that it was of use to them?
- do parents/adult participants feel more confident as a result of the programme?
- have there been any changes in the lives of those trained through the programme?

By 2001 the promotoras [educators] were in their 50s and 60s, nearly all of them were housewives, but not the kind of housewives that they were in 1978. They are involved in community activities, their homes are much better, they have increased feelings of competence and self-confidence, they continue to participate in activities to improve their community and are proud of the educational leaps that their children have made. (Colombia)

Despite the fact that the Jamaican economy is in decline, all 10 programme mothers were employed ... In all but two cases, major, long term training and further education have been pursued by programme participants. By contrast, the Comparison Group's further education were limited to efforts by two mothers. (Jamaica)

Among the former trainees, there was general consensus that the Adolescent Development Programme (ADP) had at least reinforced the virtues associated with the task of parenting ... They also found that the exposure to the ADP enabled them to be more patient and attentive to their children and, as a consequence, enhanced their parent-child relationships. (Trinidad)

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Subsequent children:

- has the programme had any influence on birth rates?
- do parents feel that the programme has helped them to care more adequately for their subsequent children?

The Comparison Group mothers, combined, had produced at the time of interview more than twice as many children over the last 13 years as the programme mothers combined – 31 children compared to 14 ... All Comparison Group mothers but one had had two or more children, seven programme mothers had never had a second child. (Jamaica)

Over 80 percent of the mothers from the intervention group felt that they had learned things during their oldest child's first year that were useful in raising their other children, compared to 57 percent in the control group ... the intervention group mothers were significantly more likely than the control group to highlight items such as how to relate to the child, with responses such as, 'how to play with the child and how to respond to the child's behaviour.' (Ireland)

Effects on communities:

- has anything changed within the community as a result of the programme?
- are there facilities/services/businesses that have been started or developed because of the programme?

There were economic improvements in that production groups had been set up, on members' own initiative, to make mattresses, bake bread, run community pharmacies and other facilities. Farmers and fishermen formed cooperatives to buy supplies and market their produce. (Colombia)

A significant change is the improvement in hygiene such as water treatment and use of latrines in the majority of homes. As a result of the programme, mothers now consider good hygiene indispensable and understand the effect this has on the family's health. Kindergarten aides reported that children are clean and tidy and they are healthy. (Honduras)

Gender:

- have there been any changes in traditional gender roles?
- are there differences in performance between females and males?

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There were alterations evident in the behaviour of the children in the programme group in that they had no difficulties interacting with children of both sexes in their home surroundings, in educational activities, and in play. This was not the case in the comparison group where children grouped themselves by gender. This was seen also in their homes where the girls carried out traditional domestic duties and the boys were involved in farm work and caring for animals. Within the programme group, both girls and boys were involved in all the different tasks. (Honduras)

At this stage in schooling in Jamaica, young adolescent males are known to 'fall off' in their performance when compared to girls. However, there is no difference in the performance of the four programme boys in the sample when compared to the girls, which is remarkable! (Jamaica)

A few of the teachers and head teachers reasoned that girls could be seen to be performing better because they outnumber the boys in most schools. In almost all the schools sampled for the teaching-learning observations, the girls outnumbered the boys by far. In some of the schools, girls constituted about two-thirds of the school population, especially in the upper levels. (Kenya)

Female former trainees had lower self-esteem than both their comparison group counterparts and male former trainees when they had trouble getting a job. If they had no trouble getting a job, their level of self-esteem was higher than their comparison group counterparts but still lower than the self-esteem of male former trainees. (Trinidad)

Motivation:

- to what extent are former participants motivated to succeed in life?

What is required is an inner motivating force, and we feel that the Parents Kindergarten programme has helped provide this by shaping and strengthening the children's ambitions for themselves, their future and their self-actualisation. (Israel)

The intervention seems to have made an indelible impression in fostering the resilient spirit and motivation for achievement found among its participants ...

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Despite their early initial setback, many of these young women have achieved more than mere employment, however. They have done what many generations of Jamaicans have aspired to do: attain a quality of life and standard of living that surpasses that of the previous generation – their parents. (Jamaica)

It should be noted that the development of pride in oneself, which is an objective of the creativity criterion and which serves to motivate individuals to aspire to better and greater things, was observed among all but one of the former trainees. (Trinidad)

What caused the changes?

- is it possible to relate outcomes or changes in behaviour to the early childhood programme?

The study found marked differences between the groups ... These have occurred through the programme activities which aim to raise the levels of development and care of the children, and adapt the attitudes and behaviours of parents and children. The achievements of the programme group are a result of the stimulation activities undertaken by their own mothers, monitored by the madres guías [mother guides], which are later complemented by the activities in the programme preschool they attend from age four. (Honduras)

It is evident that the children who attended the Parents Cooperative Kindergarten are different from other children of Ethiopian origin of their age ...

The programme's creators sought to give the children the abilities of emotional expression, expression of needs, a sense of independence and freedom of choice in the kindergarten's activities. These all serve to develop the child's sense of self, and were designed to prepare the children for the Israeli reality with which they would soon be confronted in school. At the same time, the parents were taught to see the child's singularity so that the combination of kindergarten and parents enhanced the process. (Israel)

The single variable that would have continued to influence the programme child and enable good to excellent academic achievement in all cases but one, would have been the programme mother, doubtless encouraging, insisting and motivating

her child to perform well in school, to read, to attend school regularly. Apart from the early stimulation programme intervention, no variable can have created such a marked impact and contrast to the Comparison Group's academic performance as that of the mother herself. (Jamaica)

The aim of the Community Mothers Programme is the development of the child both physically and mentally through the empowerment of the mother, and by raising the awareness in parents that bringing up children is probably the most important task that most people will undertake in their lifetime. Getting them to take on board the link between stimulation and guidance and the child's developmental progress is shown to be vitally important. (Ireland)





Chapter three Designing a Tracer Study

When designing a Tracer Study there are many questions to be discussed, thought about, and answered. The panel below gives the main general questions, although there are going to be others that apply to the specific programme, setting and overall context.

Designing a Tracer Study

Guidelines:

- Have clear objectives for study to guide the choice of methodology
- Use as many methods as necessary, don't stick to just one or two
- Use both qualitative and quantitative methods in combination
- Consider alternative approaches. An ethnographic approach may be an appropriate strategy for this kind of study
- Clarify assumptions — assume that the programme has done positive things, and also be open to seeing that not everything is positive
- Keep the big picture in mind/focus. If the focus is too narrow you may lose the big picture
- The quality of the primary school may be an important variable
- Include children and adults as informants

Practicalities:

- What audience are you aiming at?
- Where/by whom are the research questions generated?
- What is the focal unit (children, families, process of change)?
- What is the timeline for tracing?
- What is the timeline for carrying out the research?
- Who are the informants, the sample?
- Will you have a comparison sample?
- Are you going to measure/count?
- Who is on the research team?
- What are the research instruments, the tools?
- Have you taken the context into account?
- How are you going to report?

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Whose agenda?

This question has to do with having a clear understanding of who is interested in the results of a Tracer Study. Just about every stakeholder in an early childhood programme could have an agenda for a Tracer Study. Caregivers, children, parents, community, field staff, managers, funders, local authorities and others could all have their own interests that they would like to see studied; while some may have very clear ideas of what results they want to see. It is important to decide which stakeholders should be included and then to agree a common set of objectives and approaches. Trying to follow different agendas could lead to a clash of perspectives and a set of objectives that just do not fit with each other.

In the case of the Tracer Studies mentioned here, the agenda was set by the programmes – that is to say, by managers who sometimes also consulted field staff. In a few cases the original impulse came from outside (from the Bernard van Leer Foundation) but it was up to the people in the programme to decide what it was they wanted to study and from what perspective.

Whose agenda was it?

The agenda to do the study came from the implementing organisation itself. (researcher, Kenya)

The interest came from programme planners and donors, and the community is an important part of the agenda. (programme manager, Jamaica)

The suggestion came from BvLF while the initial decision, definition of the research focus and who would do the research came about through exchanges between SERVOL and BvLF. (programme manager, Trinidad)

Whose agenda? It was the institutions. They created a participatory process throughout the project. The longitudinal study was not participatory but followed very specific indicators. (researcher, Colombia)

We designed this research for our own purposes. (programme manager, Botswana)

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Who is the study for?

Who is the audience for the study? The following is a compilation of the many different audiences the Tracer Studies mentioned here wanted to reach:

primary schools, local government, teachers, officials, NGOs working in the same field, parents, the Health Board, government, policy makers, funders, community, donors, parish, media, our own organisation, BvLF, participants in the research, people interested in disseminating the project, other projects, local decision makers.

In all cases there were multiple audiences that the programmes wanted to reach. This means that they needed to know, or to find out, what aspects would be of interest or importance to the audiences, in order to address these issues during the study. For example, donors might have very different priorities than members of the community; while people interested in disseminating the work will want far more detail than, for example, the media.

Objectives and hypotheses

As noted earlier, the overall objective for a Tracer Study would be to find out what has happened over a specific period but it is obviously useful to set more concrete objectives. Often, people think that this means testing a specific hypothesis, for example: that the children from the programme are doing better at school X years later than non-programme children. The problem with this is that the research is being led in one restricted direction, the hypothesis requires only a yes or no answer, and the overall picture is lost. All ECD programmes operate with the overall hypothesis that the children are benefiting in general or in specific ways.

Experience in such studies shows that it is better to use research questions as opposed to a specific hypothesis. This is partly because a Tracer Study cannot possibly reveal sufficient data to prove anything with certainty; and partly because a hypothesis can blind the researcher to ‘facts that don’t fit’. The use of research questions should lead to an exploration that attempts to find out how life is for the former participants and their families.

Objectives for a Tracer Study need to be realistic and created in line with the possibilities and limits of such a study. In general, therefore, objectives will be to explore, to assess, to understand, to study, to look for effects and/or impact

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on those who participated in the programme (the children) and, possibly, those around them.

The Tracer Study conducted by the Bokamoso programme in Botswana – begun in 1993 – had mixed objectives. The first objective was ambitious but reasonable:

A comprehensive study of the programme was needed not only as a tool for the Bokamoso staff to evaluate their work over the past years, but also as a means of redirecting the contents of the programme.

One of the real values of Tracer Studies is that they can provide the programme with information that can be used to improve the delivery of services.

The second objective was, unfortunately, beyond the scope of any such study:

It was important to prove to other concerned parties, including the primary schools and local government, that the Bokamoso programme had become an irreplaceable link in the education of the children of this area, bridging the gap between the home and the formal school system.

It is not possible to **prove** anything through a Tracer Study. Even if hard data could be obtained to make a strong case for the importance of a given programme, there are many factors that could have affected child outcomes other than the programme. In the Botswana case, while an attempt was made to collect hard data, these were suspect: the kinds of records and statistics that would be needed for ‘proof’ were unreliable or unavailable.

Where do the research questions come from?

Knowing the agenda and the audience and the objectives for the Tracer Study helps in determining the research questions. These are not the questions that will be asked of informants during interviews or discussions and so on, they are the questions that you are hoping to find answers to by doing the study. This is the time when it becomes necessary to focus on achievable objectives that are part of the overall question ‘how are the children doing X years later?’

Choosing the right research questions is key to the whole study as the questions determine the way forward in the methodology (what methods, who will be

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the respondents and so on) and, even more crucial, the data that are collected, the data analysis, and what it is possible to say afterwards.

Choosing the right research questions is key to the whole study

It is important to involve people who are close to the respondents when deciding the research questions, it is also possible to involve potential respondents themselves. This could be done through group discussions or by open-ended interviews that explore what has been happening to them over the past years. In any case, research questions that have been dreamed up in an office far from the field are less likely to be useful than those that are agreed following discussions at several levels.

In the study in Jamaica on the Teenage Mothers Programme (TMP) two sets of research questions were defined when the study began: one set about the mothers and the other set about the children. The set of questions related to the children included:

- How have the TMP children developed?
- Are they well adjusted children, socially and emotionally?
- Now pre-teens, some entering Secondary and All Age Schools, how have they been performing in school?
- Do they live with their mothers?
- What is the nature of their relationship with their mothers?
- Does their mother influence their lives?
- Is their mother the principal care provider?
- Do they display behaviour that is noticeably different from that of their comparison group peers?
- Has the marked difference noted in the early research between the children exposed to the TMP daycare programme and the comparison group babies been sustained?

These questions were generated through discussions between the researcher, the Director of the TMP and other staff of the project.

It is not unusual that the initial research questions prove insufficient to reach the heart of the situation. Many times an initial analysis of the data raises

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additional questions that can be explored through further analysis. This was, for example, the case with the Tracer Study in Kenya:

Following a first report of the Tracer Study in Kenya, discussions between the researchers, local field staff and Foundation staff led to additional analyses of the data. The first set of findings suggested that children's academic performance was more or less the same, regardless of whether or not their preschool teachers had received training. This did not seem probable. So the data were analysed at another level. When the quality of the primary school was taken into account, the relationship between teacher training and children's academic performance was evident: children whose preschool teachers received training did better than children whose preschool teachers lacked training.

However, the finding that was more worrying was the fact that the quality of the primary school has an impact whether or not gains made in an ECD programme are sustained as children grow older. When children enter poor quality primary schools they fare no better than peers who have not had a quality preschool experience.

This finding was echoed in other Tracer Studies. This suggests that ECD programmes need to take into consideration the quality of the primary school that children will be entering. This may mean creating a programmatic link with the primary school as a part of the services offered by the ECD programme.

Outcomes and indicators

Objectives for the Tracer Study are closely related to what people anticipate will happen to and for children/participants over time. In many cases, the outcomes are stated in terms of what is hoped for the children at the time they leave the programme. After that, the outcomes often tend to be vague: 'do well in school', 'be healthy' or 'able to achieve her/his potential'. When planning a Tracer Study it becomes necessary to be more specific about hoped-for outcomes, after all, what is 'do well in school' in concrete terms?

Specific outcomes for children will vary according to their age. When looking for outcomes in a study it becomes necessary to have concrete indicators of what you are seeking to find. For example, not just 'improved nutrition' but a set of behavioural and/or physical indicators that will demonstrate that the child is developing appropriately, according to the age group. In relation to

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schooling, and depending on the context, a child in the right class for her/his age may well be considered a good outcome, while getting grades at or above national averages could indicate real success. Different kinds of outcomes and indicators would be expected for caregivers, parents, the community, the programme and the organisation that runs it.

The indicators that are used to measure the various outcomes need to be worked out at the local level, taking into account all aspects of the specific population and the overall context. The use of nationally accepted indicators could, for example, be inappropriate in marginal and disadvantaged communities. In such circumstances it is as important to look at where the children came from as where they have arrived.

Assumptions, bias, values, beliefs

It is important to realise that everyone has his or her own biases, values and beliefs and that all of us often make assumptions about other people or events based on our own perspectives. When discussing a Tracer Study (or any other kind of study for that matter), it is important to check the assumptions being made with other members of the team, the researchers, and those who are to be researched. There could be assumptions about the programme itself which are not, in fact, shared by all, there could be assumptions about what the study is for, how it is going to be done, who is responsible for what and so on. To avoid problems later in the process, these assumptions should be made explicit and agreements reached where necessary.

In Honduras there were several misunderstandings about the purpose of the study. The families thought that it was an assessment that might lead to the programme being withdrawn – which could have resulted in respondents not revealing the benefits of the programme. At the same time, the field personnel were uneasy because they felt that they and their work were being assessed. The researchers wrote:

At the outset these situations made relations between the field researchers and the subjects of the research difficult. It was necessary to organise seminars both for the beneficiaries of the project and for CCF personnel in order to explain and clarify the doubts concerning the task in hand.

Chapter three **Designing a Tracer Study**

Who should do the research - insiders or outsiders?

The majority of the studies mentioned in this publication were done by researchers from outside the programme although, in all cases, people from inside the programme were involved to varying degrees in most of the stages. There are advantages and disadvantages to both options. The panel opposite summarises the views of participants at the Tracer Studies Workshop – all of whom had some experience with such studies.

Having decided whether to use inside or outside researchers or a mixture of the two, it is then necessary to choose the actual person or people who will implement the study. This is not always an easy task – researchers are individuals and each one carries her/his values, attitudes and perceptions.

In Jamaica the researcher, recognising this, decided to carry out all the interviews herself (some 60 in total) so that there would be one ‘instrument’ (the researcher herself) who would use ‘one set of perceptions etc to assess and tell the stories of each mother and child’. In Israel, the researcher employed students with research experience as interviewers and the six people were divided into teams to interview the different groups of respondents. These teams also did the initial analysis of their interviews and thus ‘every one of them added her own flavour to the dish’. In Botswana the study was internal and:

In order to balance the research team and to avoid the possibility of biased findings, the Bokamoso Board included the services of an outsider, members of different ethnic groups and members of the advisory board, as well as one parent who also acted as the driver.

None of us were researchers, we took this on intuitively, we had an open agenda, we could allow ourselves to be informed by the process – the discovery process.

The Irish experience was somewhat different for the study of the Community Mothers Programme (CMP). An independent data collector was used and the study was planned by a team:

Chapter three Designing a Tracer Study

Inside researchers or outside researchers?	
<p>Using insiders — positive</p> <ul style="list-style-type: none"> 👉 Bring inside knowledge and understanding of the project; intuitive and intrinsic knowledge of programme 👉 Enable organisational learning 👉 Enable processes of analysing and understanding within the project 👉 Bring familiarity with and sensitivity to culture, norms, language 👉 Bring familiarity with and acceptance by respondents 👉 Allow research to be truly owned and applied 👉 Can influence the programme 👉 Provide a clear immediate sounding board 👉 Can go deeper because of interpersonal relationship 👉 Help organisation save money on research costs 👉 Provide awareness of political environment 👉 Have an investment in the outcome (double-edged!) 	<p>Using insiders — challenges</p> <ul style="list-style-type: none"> 👉 Danger of bias, for example, in favour of certain outcomes 👉 Familiarity/knowledge might hinder objectivity 👉 Possible over-identification with project; too close to the problem 👉 Could be too passionate, unable to separate issues 👉 Might cause respondents to give answers they think the project wants to hear 👉 Have competing work loads 👉 Difficulty in shifting roles 👉 Could have blinkered approach to data 👉 Have an investment in the outcome (double-edged!)
<p>Using outsiders — positive</p> <ul style="list-style-type: none"> 👉 Challenge the thinking and what has been taken for granted; see outside the box 👉 Bring broader and new perspectives; a fresh view — new eyes; lack of bias; objectivity; detachment 👉 Bring wider experience from other projects 👉 Have greater expertise in research 👉 Committed to the research, not to project implementation 👉 Bring new ways of understanding 👉 Can optimise research focus 	<p>Using outsiders — challenges</p> <ul style="list-style-type: none"> 👉 May miss important knowledge or understanding through lack of information and being new to the subject 👉 May not be familiar with the culture, local language, jargon 👉 Will not be aware of hidden agendas 👉 May not come up with relevant questions 👉 Could experience social distance because of background and expertise 👉 Could be influenced by outsiders/funders 👉 Money spent on outsiders could be used for project development 👉 Could be resented because of bitterness about higher wages, stolen information, and suspicion from respondents 👉 Respondents may not respond to an outsider 👉 Additional time is needed for orientation 👉 May not be open about own assumptions 👉 Their time is sometimes limited
<p>Possible solutions</p> <ul style="list-style-type: none"> 👉 One solution could be insider research supported by outside resource persons/monitors 👉 A single perspective can be avoided by involving as many insiders in the team as possible and having a primary outside researcher guiding the research process 	

Chapter three **Designing a Tracer Study**

A working group consisting of the Director [of the Programme], two Family Development Nurses, a Community Mother, a social scientist and two public health specialists met several times to work out a strategy for the research. Most of the group had some knowledge of the CMP and had an interest in the area of parent support. The inclusion of a Community Mother was very positive because she was very aware of what needed to be included in the study.

Informants/respondents

Who will you seek information from? Once all the questions above have been answered and decisions taken, you can then look at which kinds or groups of people will be asked to give information. This will also depend on your specific focus – are you looking at what happened to the children? Or perhaps you would like to follow up the caregivers who were trained through the programme and find out how they and their families are doing some years later? Perhaps it is a programme that concentrates on parents and you want to find out how they are doing, and/or how their children are doing.

One of the programmes mentioned here, in Trinidad, worked with adolescents who, at the time they were in the programme, were not parents. The Tracer Study looked at what had happened to them and paid specific attention to areas such as childbearing and attitudes to parenthood. The respondents were the former programme participants, their parents, community leaders and employers where possible. In Jamaica the programme was aimed at teenage mothers whose infants were cared for in a specially run creche. The Tracer Study focused on what had become of both the mothers and the children, and respondents were the mothers, the children, and the children's teachers. The study in Ireland followed up mothers who had been in a home visiting programme and they were the main respondents, their children were not interviewed.

In all studies it is important to obtain information on the original programme. This is the case whether the research is being done by insiders or outsiders. Where possible, it helps to talk to the people who originally established the programme to find out their motivations and objectives and aspirations for the participants as this will inform the research and the audience for the report.

Chapter three **Designing a Tracer Study**

Decisions on who to go to for information will be based on who can provide the kind of information being looked for in order to answer the questions the study is asking. And this can include people who have had nothing whatsoever to do with the original programme – school teachers, employers, education officials or others.



Chapter four **Methods to gather data**

There are many ways of gathering data for a study and we can only give a brief overview here. Appendix Two includes suggestions of resources on research and other areas that can be consulted on paper or electronically.

As a general rule, the objectives and research questions will determine the methods to be used, as will the level of data and analysis that you are looking for. For example: very detailed or more general data, individual perceptions or group perceptions, statistical or qualitative analysis. The main methods that were used in the studies mentioned here were: interviews, questionnaires, rating scales, discussion groups, observations, examination of records, background research and surveys.

Interviews and questionnaires

can be with one person or a few – such as a family. To make sure that the same areas are covered with all members of a group (children, parents, teachers etc) it is important to have some kind of interview schedule or checklist of areas to be covered. The questions asked can vary from very open (can you tell me about ...?) to fairly closed or specific (have you been employed since you left school? what kinds of things do you like to do when you are not in school?).

Some researchers use a questionnaire which can be pre-printed with spaces left for the responses. A questionnaire means that the researchers have structured the interviews in advance because they are fairly sure they know what they are looking for. If, on the other hand, the researchers want a variety of spontaneous reactions (because, for example, they are looking for life histories or wish to undertake narrative analysis) then they would use very open topics or questions.

Examples of questionnaires were reproduced in the reports of the Tracer Studies from Jamaica, Trinidad, Ireland and Botswana (see Appendix One).

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In Kenya the researchers combined the interview with observation of the children:

Individual information on personality development and attitudes was collected mainly through direct interviews, which involved, first and foremost, creating a good atmosphere and rapport with the pupil. In order to help the child to relax and feel confident, and to minimize any inhibitions, the children were addressed in a warm and friendly manner. It was important to cheer them up so that they would respond to the interviews freely. Most children were confident and opened up easily, answering all questions as asked. A few would not open up, and it was very difficult to obtain information from them.

In Israel, the researchers interviewed children using three open-ended (projective) ‘requests’:

Tell me about your daily routine. Tell me about a family. Tell a story about the picture. [NB, the picture was provided].

Some of the parents were highly involved in the course of the conversation, supervising their children’s answers, or adding answers of their own. In some cases, the interview was defined as ‘familial’, since the parents and children jointly constructed all the responses.

For the parents’ interviews there were seven guiding questions, with follow-up questions to encourage the interviewees to expand on the subject:

- Tell me a little about your son/daughter (age, grade, school, etc.).
- Tell me about any special programs attended by your son/daughter.
- How would you assess these programs?
- In what subjects/spheres is your child more successful, more outstanding?
- Describe your child’s relationship with his/her parents, siblings, the extended family.
- How do you see your child’s future and what would you want for him/her?
- In your opinion, how can your child be helped to attain this?

Rating scales

are pre-designed sets of questions where respondents are asked to say whether

Chapter four **Methods to gather data**

they agree or disagree with specific statements. Every response is scored and a composite score will tell the researcher where the individual 'fits' on that particular scale. These kinds of scales were used in three of the Tracer Studies: in Jamaica, Trinidad and in Ireland. In Jamaica an attitudinal scale to assess the level of Internal-External Locus of Control, Assertiveness and Alienation in the mother was compiled from a selection of items from locally administered attitudinal scales. In both Trinidad and Ireland a scale (the Rosenberg self-esteem scale, originally developed in the 1960s in the USA) was used to assess self-esteem.

It should be stressed that such scales only give indications and not hard evidence. Because they tend to be based on norms and values of a particular society, it is also important to use scales that are locally standardised, that is to say, they have been tried and tested on a similar population – same age range, same educational levels, same country and context.

Group and focus group discussions

are increasingly used in qualitative research. A group discussion could be quite general with a mixed group of people when the researchers are looking for a variety of responses and reactions. In a Focus Group, an invited group of people (one type such as only parents or only teachers, or mixed) will be asked to focus on one or more specific topic.

In both cases the discussions will be led by a facilitator who may or may not be the researcher. And of course, notes will be taken for use later.

Some researchers use group discussions because there is simply not enough time to interview all the people individually. Many people find that the to-and-fro of discussion helps to spark ideas among participants, and a group also means that it should be possible to gauge whether or not there is any consensus in a particular area of interest. In Jamaica, the mothers were interviewed individually and were later brought together in a focus group. There were several objectives:

TMP participants had an opportunity to share their perceptions of the programme in a group situation, enabling the researcher to identify shared views.

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Despite great openness in the interviews, it was hoped that the dynamics of the group might help some of the less assertive participants in identifying less positive features of the project that they may have thought it insensitive to share with the researcher in a one-on-one interview.

...the occasion also provided an opportunity for positive feedback and encouragement to be given to the former participants.

Observations

can be very structured, such as when a researcher observes and notes everything that a specific person does for a certain period. Or semi-structured when the researcher has a checklist of items to look for. Or they can be less formal.

In Kenya the researchers made notes from their observations inside primary school classrooms and around the whole school. During their interviews with the children they noted their ‘physical presentation, mannerisms, fluency, confidence, cleanliness and health’.

Examination of records

is a way to track people whom the programme has lost touch with and/or to find out about their progress. These could be records from the programme itself, at schools, at education offices, or other institutions. In some cases, however, the records may be inadequate or unreliable.

Background research

could include research on conditions in the country for purposes of comparison, on the area where the programme takes place, the people it is working with, and also on the programme itself. This kind of background will help readers to understand where the study and the findings fit into the general scheme of things.

Surveys

are used to gather fairly basic data which can then be collated to draw a broad picture. The same questions will be asked of all informants, and the survey may be conducted through interviews or in writing, but these are not generally personalised. It would be possible to use a survey to trace some generalised

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data among a large group, and then use the results to decide on topics for more in-depth investigations with a smaller group of respondents. A survey could also be used the other way around. For example, after a small-scale Tracer Study to find out whether specific findings can be generalised among the larger population.

Triangulation

‘Triangulation’ is about checking data from more than one source. If we are trying to establish effects we need to triangulate by getting our data from two or more sources and matching or comparing them. In most of these studies, for example, researchers asked children, their teachers and their parents about how the children were doing. In most cases, the responses matched each other, but there were some anomalies. For example, in the Jamaica study one boy said he was attending a specific school, but his teacher had not seen him for several months and thought he had transferred elsewhere.

Ethics

Tracer Studies, of necessity, involve working with people. Research has sometimes had a bad name in the past when researchers have behaved in ways that are discourteous and dismissive of the people being researched, or have manipulated the data and/or findings for their own ends. This can take many forms and can be particularly unpleasant when the researcher ignores local culture and manners. Involving the population among whom the research is taking place is one way of ensuring that the Tracer Study is carried out in an ethical manner.

It is not always easy to get people to commit to being involved in research. There are groups that feel they have been over-researched and are tired of being ‘objects’ of research, especially when the results are never fed back to them and, they believe, the researcher is making a living out of data that rightly belongs to them. For example, in Botswana:

Our communities have had many people asking them questions and they feel nothing is ever fed back to them. The San suspect that people such as researchers, journalists and film makers have been making money out of what they have told them.

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One way to gain people's confidence and cooperation is to ensure that all aspects of the research are open and transparent except where anonymity is required for confidential reasons. And if a researcher promises to keep data anonymous, then it is essential to ensure that the provider cannot be identified in any way. The study in Jamaica had very small samples (just 10 in each of the participant and comparison groups) and in the published report:

Names of Caribbean flowers, fruit, spices and herbs have been used to replace the real names of the mothers and children in order to protect their anonymity.

By way of contrast, in Israel the researchers held a meeting for the children who had been interviewed and told them that their details would remain confidential. But

They asked to be mentioned in the research. 'We agreed to be interviewed,' they said, 'so we don't want you to hide us. We want to be presented.'

In the event, the list of 76 names was not included in the report. The lead researcher thanked the children in her acknowledgements:

Especially I want to thank them for their unique reaction that challenged and changed my perception that took for granted that we have to hide the individuals who are researched. From now on I will not only ask my research population for their consent, but I will also ask whether or not they want their identities protected. Some of them may want to be recognised. When we talk about participatory research and evaluation, this is a point of view to be considered.

Identifying and following procedures

In many settings there are quite comprehensive procedures to be followed to ensure that people's rights are not violated. In some circumstances it is necessary to obtain permission. This could be from national or local government officials, from those who run institutions (such as schools), from traditional leaders, and/or from parents for permission to interview their children. The researchers in Botswana had to go through almost all of these steps:

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Before starting the research, permission was obtained from the Office of the President as well as from the education officer of the Ghanzi District. To keep communication channels open, the team announced the purpose of their research to the Village Development Committees (VDCs) in advance. During their regular visits, team members held meetings with the preschool staff, the parents of current and former preschoolers and the headmaster of each primary school. During the meetings, they discussed the reasons for the study and possible ways of conducting it.

As in Botswana, the Kenya tracer study was dealing with institutions, and the researchers made sure that they explained and discussed the study with all concerned, including provincial and district education officers and communities, and that the schools they were to visit were prepared and understood the reasons for the study. Later, when they went back to disseminate the results, there was acceptance:

because they knew about it from the beginning, that is a very important aspect of policy change.

Taking culture and context into account

Just as no ECD programme can be copied from one setting to another without some adaptation, so any form of study or research needs to take account of local realities and sensibilities. It is obviously essential that whoever is designing the research has a deep understanding of what these are, and that the methods used to gather data are culturally acceptable.

Just as no ECD programme can be copied from one setting to another without some adaptation, so any form of study or research needs to take account of local realities and sensibilities.

For example, in some societies it is impolite to ask direct questions. This is true for the families of Ethiopian origin who were part of the study in Israel. Therefore the interviews in Israel consisted of three open ‘questions’ actually phrased as statements (see above). According to the researcher:

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The knowledge that at this age children are not good interviewees, combined with our wish to avoid direct questions, led me to develop a three-part interview schedule.

In some cultures it can also be impolite or undesirable to give a negative response. This is illustrated by the study of the San in Botswana, where it was necessary to use roundabout methods to obtain information.

People tend to be polite towards strangers, and are likely to give questioners the kind of answer that is perceived as expected or desired ... respondents often gave answers that portrayed their living circumstances in a far more negative light than reality would suggest, in case the interviewer could be of material or other assistance

In some contexts people are happy to invite strangers into their homes, in others this is very rare and locations have to be found for individual or family interviews. In some societies people will talk freely and openly about their financial and personal circumstances or about their feelings and emotions, while in other societies these topics are taboo. In many cultures the age, gender and status of the interviewer will influence the responses of people who perceive themselves as different. And in all societies there are people who are shy of strangers – this could be part of their culture or it could be a personal trait.

Use of writing can be a hindrance where interviewees are not literate, as inaccessibility of the written word can contribute towards feelings of exclusion from, and mistrust of, people who represent literate societies.

And knowledge of the local context can be essential for safety as the researchers in Ireland discovered:

At one point it was thought that the study might have to be abandoned because the number of mothers contacted was not sufficient. The working group discussed the issue and it was decided that the Director of the CMP should travel with the data collector to the areas each evening to see if more mothers could be interviewed. The knowledge of the Family Development Nurses and Community Mothers of the different areas was invaluable at this point because a number of the areas were unsafe for non-residents to visit at night. The strategy was that the data collector visited an address while the Programme Director remained in her car. This was important as, during the 1990 study, one of the team's cars was burnt during one

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of the visits. In spite of the fact that both the data collector and Programme Director had identification, two calls were made to the Health Board to report two suspicious women, one sitting in a car while the other was visiting houses in the area with small children and asking a lot of questions. The mobility of residents and issues of personal safety can make it extremely difficult to evaluate Programmes of this nature.

Qualitative or quantitative?

Whether to use qualitative or quantitative methods depends on the objectives of the study, the research questions, the audience being aimed at as well as the resources and skills available. Both of these methodologies struggle to interpret the evidence and account for differences between respondents. And in any case, they are not alternatives.

Qualitative methods can reveal phenomena but cannot tell us to what extent they occur within a given population. Quantitative methods can give us this kind of information, but only about phenomena that we know exist. Combining the different methodologies should lead to more meaningful findings and interpretations. It might be logical to begin with a qualitative study in order to discover the phenomena and then undertake a quantitative study to discover the strength, rate and distribution of them within the given population. It is also possible, for example, to have a fairly large scale quantitative study and then to draw a smaller sample from it for an in-depth qualitative study.

The Kenya study, with almost 1,000 children to track through their primary schools, used a quantitative approach to summarise what had happened to them. But this was accompanied by the use of qualitative methodologies such as interviews, focus group discussions with teachers, parents and others, questionnaires, and observations. In Botswana, the programme originally wanted to do a quantitative study that would follow up programme children in the first years of primary school. But they discovered that some records were missing or unreliable and, in any case, they realised that statistics could only tell a very small portion of the whole story. For example, while accurate records and statistics could have counted how many children had dropped out of school, it needed qualitative research methods to uncover the multiple reasons for dropping out.

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What variables should we explore?

The variables are the characteristics of the people and/or the programme that the researcher thinks might be related to outcomes of the programme. The kinds of variables to include depend very much on the programme being studied, the objectives of the research, the overall research questions, and the population being studied. In the panel opposite is a selection of the variables that were used in the Tracer Studies discussed here.

To compare or not to compare

Whether to use a comparison group or not in a Tracer Study depends on the research questions. There are two very different questions that can be asked:

- What are children/families who participated in the programme like X years later?
- What would children/families be like if they had NOT participated in the programme?

The first of these questions is essentially looking for description, it is a way of looking at outcomes, but you cannot relate these to the programme as cause and effect. If this is your research question, you do not require a comparison group.

The second question cannot be answered without a comparison group. By comparing similar populations who did and who did not participate in the programme it strengthens the case that it was the programme that made the difference. But this still does not **prove** cause and effect.

There are basically three different types of group that can be used for comparison:

- The **control** group where the same kinds of individuals/families from the same kinds of neighbourhoods have been randomly assigned to be in the programme or not (the programme group is sometimes called an 'intervention' or 'treatment' group). While historically it was possible to create a true control group, today it is very difficult to create a control group in research dealing with human subjects. It is generally considered unethical to offer services to one group and withhold them from another,

Variables that were studied/found in the Tracer Studies	
socio-demographic/socio-economic:	
<ul style="list-style-type: none"> ● age ● sociodemographic makeup ● economics/employment opportunities/poverty/unemployment ● housing 	<ul style="list-style-type: none"> ● car ownership ● telephone ownership ● central heating ● own garden
parents/mothers:	
<ul style="list-style-type: none"> ● effects on subsequent children ● maternal diet/nutrition ● breastfeeding ● maternal self-esteem ● mother-child bonding ● mother's schooling/further/higher education 	<ul style="list-style-type: none"> ● paternal involvement ● religious affiliation ● marital status ● maternal employment ● paternal employment ● involvement in preschool/programme
children:	
<ul style="list-style-type: none"> ● immunisations ● diet/nutrition ● health/accidents/illness/abuse ● attendance at preschool ● TV viewing/videos ● reading/library ● hobbies/interests ● enjoyment of school ● school performance ● academic achievement ● bullying 	<ul style="list-style-type: none"> ● homework ● discipline/moral guidance ● parental awareness of friends ● social/emotional development ● personal presentation (neat, tidy etc) ● relationship with mother/father/siblings/family members ● relationship with non-family members ● career aspirations ● confidence/self-esteem
professionals/paraprofessionals:	
<ul style="list-style-type: none"> ● effects of training ● effects of the quality of preschools ● management/organising skills 	<ul style="list-style-type: none"> ● aspirations for future ● achievements since training
other:	
<ul style="list-style-type: none"> ● rates of repetition, dropout ● gender differences ● organisational traces ● drugs, alcohol ● social policy/legislation ● support services available (or not) 	<ul style="list-style-type: none"> ● formal networks ● informal networks ● sense of safety/security ● teenage pregnancies ● traditional/rigid schooling

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without the people being aware that this is happening. What that means is that for Tracer Studies the best you can do is to create one of the following types of groups.

- The **matched** group in which you first define important characteristics of the intervention group and then match them with individuals that are as much like the individuals in the programme group as possible.
- The **comparison** group which is composed of people who are like those in the programme in many ways but did not participate for whatever reason. For example, they could be from a different village.

There are other forms of comparison that can be used. One is to use an additional comparison group from the general population so as to assess the differences and similarities between the programme group and the matched or comparison group from the same or similar background on the one hand, and the ‘majority’ population on the other hand. In Israel the study had three comparison groups. Programme children were interviewed from two distinct areas, thus comparison groups came from the same two areas and were matched so far as possible. Yet it was decided to also compare responses with another group of children from a different town and with different backgrounds, in order to assess the extent to which the children of immigrants who were traced had, or had not, moved towards national norms for their age groups.

The study in Colombia did not have a comparison group as such. It did, however, do some comparisons. The study looked at children’s heights, weights, grades, educational performance and so on over a period of some years, and used regional and national statistics as a standard against which to measure how the programme children had done. But this is only valid where the regional/national statistics are believed to be accurate. In the Colombia and Botswana studies the aim was to look at progress of the programme itself, and what had happened to the children/families who had participated. Neither of these programmes wanted to use specific groups of people for comparison purposes and, in both cases, it would have been extremely difficult to find populations that were sufficiently matched.

The other studies discussed here used one or other form of comparison group. In Ireland a control group had been drawn up when women first entered the programme after the birth of their first child. Eight years later, it was possible

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to trace just one-third of each group (programme and control) and these were studied. In Jamaica too, babies had been matched to form a control group when the programme began but only five of these could be traced ten years later. Because the numbers were so small, another five matching children/ mothers were added, making this a hybrid control/matched group.

The more comparison groups there are in these studies, the more possible it is to limit the influence of other factors. In Trinidad the young people who were traced came from four areas of the country and comparison groups were matched in each area. In the event, the analysis revealed no differences between the areas, thus the report consolidated the findings. In Honduras the study used a comparison group from a village where the programme was about to be implemented. This has therefore served the dual purpose of comparison for the study and baseline data for the future.

Two of the studies used a cohort approach. In the Kenya study the researchers looked at three cohorts of children who moved from preschool to primary school in three successive years and each cohort had a programme group and a comparison group. Each cohort was examined separately and findings were consolidated in the conclusions – no attempt was made to compare one cohort to another. In Colombia, however, the researchers have compared cohorts by examining outcomes from one year to the next or the previous one. The objective was to see whether there were differences in outcomes or performances between children who joined the programme after it had been operating for more or less years. As a community-based programme, it was important to find out whether there was a cumulative effect as time went on.

How big should the samples be?

The main constraint when trying to find out the effects of a programme are the influences on children/families that are beyond the sphere of the programme. Here is where numbers become important because if the numbers are large enough then changes for one child do not influence the overall outcomes. If the numbers are small, then an unusual event for one individual impacts the sample in a disproportionate way.

Determining the number of children to include in the sample depends on many factors, including the resources available (time, money, expertise and so

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on). Calculating the optimum number should, if possible, be done in relation to the number in the total population. This is a complicated process and needs to be done by a specialist in this area.

If the groups have been randomly assigned, then the sample sizes can be smaller; if the sample is to be non-random, then a larger sample is needed. However, as noted above, in the kinds of Tracer Studies that are being discussed here, it has not been possible to do random assignments, so sample size needs to be determined by other dimensions.

One of the things that influences sample size is the study methodology. For example, it would be difficult and unwieldy to do a qualitative study with a sample of 2,000 children. If the study is quantitative then samples of around 25 in each group can be sufficient.

In the studies discussed here sample sizes varied from 10 mother/child pairs who had been in the programme in the Jamaica study, to almost 500 programme children in the Kenya study. And of course, having a comparison group doubles those numbers, while interviewing parents, teachers and others in addition to those who participated in the programme can add up to a large number of interviews.





Finding the respondents and talking to them

It is just possible that, after all the planning, it turns out to be very difficult to locate the people that the study has been designed to trace. The longer the period since the potential respondents left the programme, the more likely it is that they cannot be found. Even in an area with a relatively stable population, some families will have moved away. If they have moved very far, there might be practical or financial reasons not to interview them. In any case, it is not an easy task to trace everyone you might like to include in the study.

Most of the studies mentioned here met some setbacks in the tracing and locating process. In Jamaica, for example, half of the original control group could not be located. This, of course, always leaves unanswered questions: Is the fact that they moved away in any way significant? Clearly it makes them different from those who stayed behind. The question is, does that difference have any meaning in relation to programme outcomes?

In Israel the researchers found that parents were extremely reluctant to be interviewed:

Obtaining the parents' agreement to be interviewed was very difficult, with almost half of them refusing, including those who willingly agreed that we interview their children. With some of the parents who did not directly refuse, it was simply impossible to set up a meeting.

This led them to question whether the parents who were interviewed were truly representative of the whole population of parents:

Because of the community's low response in the study, it is clear to us that the parents who were interviewed are different from those who were not, and there is

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a concern that the similarity between them is greater than the differences. Furthermore, language difficulties and the presence of the children could also influence the parents' responses and openness.

The programme in Ireland that was studied operated in urban areas that were very disadvantaged and many people moved away if they could. At the time they had been in the programme, many of the women had been single mothers. Eight years later, some would have married and changed their names. In the event, just one-third each of the original programme group and the original control group were traced:

If it was not possible to make contact with the mothers on the first visit, up to five further visits were made until the mother was contacted and an interview could be carried out. Some mothers were traced through a street directory from which it was possible to find out whether or not the mother herself or a member of her family was still living at the address given during the 1990 study. It was possible to reach some of the mothers through their medical registration.

This last option was only possible because the programme is part of the official health services, other programmes would not have been able to access the medical registrations.

In Trinidad the programme provided lists from the four centres to be studied. The researchers then selected 10 trainees from each list to ensure a more or less equal male/female balance and a range of ages.

However, it should be noted that it was difficult to locate some of the trainees and two were not willing to be interviewed.

One very important lesson is not to underestimate the memories of the children. In India:

The teachers and supervisors first made a list from their past records and went around their areas to locate the children. Several of the older children would greet their former teachers when they crossed each other on the streets. So the study began with the children that the teachers met frequently. Each child was asked to remember the names of children who were in the Child Care Centre in their time.

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Two or three names would be recalled; these children, in turn, would give more names. Almost organically, the network grew.¹

The importance and value of records

Record keeping is often one of those chores that is forgotten in the everyday life of a busy early childhood programme. It somehow seems less important than all the other tasks and often has a low priority. And even if there are adequate records at the time, in later years they are often perceived as taking up needed space in the cupboard or on the computer, gathering dust on shelves, going mouldy in the basement – in other words, they are disposable. In Israel, the Almaya organisation originally proposed to trace former participants of its home visiting programme but discovered that during a clean-up just a few months earlier, all the records had been thrown away.

In the Indian example above, the organisation that runs the Children's Crèches, SEWA, did not keep any central records. The tracing method described above yielded 2,906 children who had been in the crèches and, as the consultant wrote:

... by this time, the entire list of all the children who had passed through the SEWA Crèches in Kheda was available. I told them to take a photostat copy of the document and to keep the original 'census' in a bank vault! This was mainly to impress upon them the value of the information that they had collected and the continuing need for documenting their own activities.

In some cases, it is not just the programme's own records that are missing or inadequate, but records of other bodies as well, such as schools and education services. This turned out to be the case in Kenya where the research team selected a sample of 18 schools from which to track children from preschools. However, it turned out that in six of the schools the records were so inadequate that they had to reduce this part of their research from the original 18 to the other 12 schools. A similar problem arose in the same study when the researchers were trying to find out about children who had dropped out of school. As in India, their solution was to ask the children for their help:

¹ Anandalakshmy S. 'Children's carnivals as a tracer method' in *Early Childhood Matters*, 100, December 2002

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The tracking exercise included a thorough scrutiny of all the available school records on these children, including school admission registers, class enrolment records, attendance registers and sometimes performance records. This information enabled the research team to identify and confirm admissions to Std 1 during these years and to track the children up to their current classes. However, since the registers alone were not enough to give the required information on all the pupils appearing on the admission registers, the pupils who were still in school provided this information. These pupils were assembled and they provided information as a group. This not only proved a reliable way of collecting information, but also an efficient method of cross-checking the information already obtained from the records. It was possible to determine the current whereabouts of most of the children using this method.

The study in Botswana was also interested in the children who had dropped out of school and, as in Kenya, school registers were not very helpful. In this case:

the team members tried to find the parents and contacted their relatives to locate them. The parents were questioned about the reasons for their children dropping out of school and about their own perceptions of formal education.

What else could or should we have looked for?

This is a question that it is useful to ask in the course of the fieldwork because it is sometimes possible to add or change methods, techniques or questions. It is also about being alert to the responses that are coming in and whether there is possibly a pattern, or a cluster of topics that could be important, or whether a question needs to be reworded to make it clearer. As the study gets under way there are many questions that can be asked to check whether or not the kind of data being gathered will be useful. It is entirely possible that the research team did not anticipate all the things that might prove relevant. The following are some of the questions that the researchers in these Tracer Studies asked themselves:

- When we say parents, do we really mean only mothers?
- If so, where are the fathers? What roles are they playing?
- Are we looking at gender differences (in parents or children or teachers etc)?

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- When we ask a respondent to make an assessment or judgement (such as a teacher about a child), are we also asking them what criteria or indicators they are using in making that assessment?
- How hard should we try to find the ‘missing’ respondents?
- Are we following up the right people – such as those who dropped out?
- Are we looking for effects on other or subsequent children in the family?

Answers to some of these questions can be provided through testing the instruments and data collection process through a pilot exercise in which members of the target group, or people as like them as possible, are used to respond to the instruments. But there are circumstances where this is not possible, for financial reasons, for timing reasons, or just because there are not enough members of the target group to conduct a pilot and then the actual study.

Even with a pilot study, the basic question that needs to be asked throughout is: are we asking the questions that will enable us to provide sufficient data to answer the research questions?

The initial research plan in Honduras had focused mainly on mothers and children. However, the researchers decided to set up focus groups for fathers because

during fieldwork it was considered necessary to take the fathers’ opinion into account to gain a more complete vision of the children’s relationship with all the members of their family and to define a more accurate profile of the father figure.

Challenges and constraints

Researchers meet many challenges in the course of the field work. These can concern the actual content of the study – as above – as well as logistics, weather, cultural practices and other factors. In Israel a major challenge was the attitude of the community being researched:

The Ethiopian origin community is checked by all kind of researchers so much, and they hate it. You always hear from them that they are not laboratory rabbits.

The researchers in Kenya listed some of their major challenges in their report:

- Tracking dropouts was difficult because these children were not, of course, in school. Lack of adequate records in the sampled schools further complicated this exercise.
- Distances between schools were enormous and, in most places, there was no public transport available. Consequently, the research assistants had to walk long distances to reach the sampled schools.
- Looking for academic records and attendance registers that were in storage was a very demanding exercise. Few or none of the relevant records were readily available, and looking for them was quite frustrating and time consuming.
- Embu being a wet district, the research team was constantly slowed down by bad weather conditions. The terrain was also rough, and most of the roads were impassable during the rains.
- The vast distances between the sampled schools forced the research team to work very hard to finish their work in one day in order to avoid a second visit. This often resulted in long working hours and fatigue.
- There was a great deal of data to be collected over a limited time.
- Some head teachers and their deputies were unavailable when the research team visited their schools, which meant that second visits had to be arranged because some of the information required from them was highly confidential.
- The process of data collection was particularly slow in the large schools because there were so many records to go through.

In Jamaica the researcher found herself stranded ‘in the middle of nowhere’ with a boiling radiator in her eight year old vehicle. On another occasion, she arrived home from an interview to learn from the news that the police had captured ‘one of the 10 most wanted criminals in Jamaica in that very area that day!’

Effects on researchers

The researcher is one of the instruments of the research and, being a human being, it is not always easy to avoid getting involved. The researchers in Trinidad and Jamaica both reported requests for information and advice and

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assistance. In both of these studies the subject matter of the interviews included many personal issues so that it was necessary for the researchers to build a relationship of trust with the interviewees. In some cases this resulted in requests from the interviewees which were, as far as possible, politely refused. In at least one instance, however, a mother was so concerned about her child's health that the researcher located a hospital consultant who would be able to examine the child.

Many participants in the focus groups in Kenya:

looked at the research team as people who had come to give them technical advice. The parents and the committee members used these discussions as an opportunity to find out how to improve their schools. The information collected from these discussions clearly portrayed the kind of attitudes parents have towards education. The open dialogue with parents was an enriching experience, not only for them but for the research team as well.

As for objectivity, even the most experienced researchers struggle to remain open to the data. The researcher of the Israel Tracer Study wrote that:

The most important thing is to be aware! First, to my vulnerability to biases and second, to my tacit hypotheses and expectations (such as that there will be differences between the two groups in the study), or to my prettiest new explanation to a phenomenon, because there is where my biases will be. The more I am aware of that, the more I catch myself 'cheating'. And sometimes it is quite a struggle when my cheating side tries to convince my other side that the cheating is not really a cheating and that it is possible to see things the way I want to see them.

It is as well to remember that the nature of the material being dealt with (which can sometimes be very distressing), plus the expectations that lengthy interviews can arouse on the part of informants, may exert quite a personal toll on the researcher.





Data analysis

The information that has been collected during the study is known as ‘raw’ data. While some of this material may be of interest or use as it is, its real value will lie in the ways it is analysed. The data analysis process is important in understanding what has been happening to the subjects of the study and, if we are open, we may be able to see connections that were important for the respondents. As one of the participants at the Workshop said:

It is important to measure, but even more important to COMPREHEND what we are measuring. Research is always interpretation.

Analysis is about ordering and re-ordering the available data to see if there are patterns and themes and, just as important, if there are contrasts and irregularities. Within both quantitative and qualitative analyses there are procedures to be followed that help understand the data.

The open-endedness of qualitative data calls on the researcher to make sense of data that are not pre-defined in terms of variables to be examined, as is often the case with quantitative data. Within qualitative studies it is necessary to organise the data in a comprehensive and intelligible way – sometimes called categories or clusters. If these are decided at the beginning of the process there is a danger that important patterns or relationships (or non-relationships) between data will be missed. This could result in losing the main strength of qualitative research: revealing the phenomena. This is a difficult, but important, form of analysis.

The specific clusters of data will depend on the samples and the evidence but it is important to remember that the same pieces of evidence can be used in different clusters. Think of it as cutting a mixed fruit cake in different directions

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– horizontally, vertically, diagonally – several times over. Each of these cuts (or groupings), reveal a different perspective and a different reality about the cake. This process has been described as ‘trying to create order and patterns from evidence’.

The data could suggest one pattern to an outsider, another to an insider

The most obvious clusters are those used to define the sample, for example: different ages, male/female, location and so on. Other clusters define variables such as: reading ability, parental status, self-confidence and so on. From this, it should be possible to do cross analyses, for example, to look at reading ability by gender, or self-confidence by location.

Ideally, the establishment of the patterns and the clusters and the allocation of data to them should be a collective effort by a team of people with different perspectives because, for example, the data could suggest one pattern to an outsider, another to an insider.

Collecting and analysing both quantitative and qualitative data ensures the greatest understanding of outcomes. You can, for example, measure reading ability with a test and then analyse the results of the test using statistical procedures, and there are tests that measure self-confidence and self-esteem, giving the researcher a numerical value that can be manipulated. But in order to understand what the numbers mean, for those individuals, in that context, it is invaluable to talk with them and to hear their stories.

If you can illuminate what the numbers mean by using stories that are representative the report will be much more valuable

If many people are interviewed and the content of their stories are analysed and clustered and ‘counted’ in some way, the numbers in and of themselves are not likely to be very persuasive. But if you can illuminate what the numbers

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mean by using stories that illustrate and are representative of those clusters, the report will be much more valuable. This would be the case in the example in the last chapter of reporting the number of dropouts from primary school and also giving some of the real-life stories about why the children dropped out. Such an approach leads to possibilities for future action in both policy and practical terms.

The Trinidad researchers used both quantitative and qualitative data in the research and analysis:

In order to evaluate the effectiveness of the ADP [Adolescent Development Programme], its major focal areas—the criteria—were examined in relation to the two groups of respondents. However, variations in these areas are not dependent only upon whether or not young people have been SERVOL trainees; other variables, such as interactions with the training exposure of such individuals and attributes such as gender and geographic location of life centres would be expected to have an influence, and these have also been examined.

Additional information to support the analysis includes the qualitative life histories taken from the questionnaires and anecdotal responses from the parents, employers and community leaders. The quantitative and qualitative data that were collected permitted analysis of the characteristics, attitudes, behaviours and experiences of respondents from the two groups. Because of the non-probability character of the sample and its small size, the quantitative results have been used primarily to provide description, while the qualitative results provide substance.

Some researchers like to analyse the data as they go along, others prefer to do all the fieldwork first and then examine the data. There are advantages and disadvantages to both of these approaches. If the data are analysed as they are collected, new areas for investigation could be revealed, as the Botswana researchers found:

On returning to D'Kar with information, the team held group discussions. Field notes were interpreted, and areas where more study was needed were pointed out.

In this particular case, the researchers were working out their methodology as they went along so this was a sensible and practical way to approach the

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analysis. Another approach, taken by the researcher in Jamaica was to

gather the data within as brief a time period as possible and then 'live with' the data for a while.

In the Kenya study, the analysis raised so many questions that further analyses were conducted. In this case, it was to find out whether there were relationships between different variables. The numbers involved were quite large (nearly 1,000 children in 18 schools), the analyses were statistical, and they were carried out by specialists. The areas looked at included:

- relationship between school quality and academic performance
- relationship between training status of preschool teacher and child performance in school
- interaction effect between training status of preschool teacher and school quality on children's academic performance
- relationship between academic performance, school quality and geographic location
- relationship between geographic location, training status of preschool teachers and academic performance

The usefulness of these further analyses was not only to find out whether relationships existed between the variables, but also to 'investigate spurious relationships between two independent variables'. Thus it is one of the few possibilities where it might be possible to prove a negative. But it is only possible where the numbers are large enough, as they were in this instance.

Further analysis can investigate spurious relationships between two independent variables

Using computers

At one time all data analysis had to be done on paper by hand. Nowadays there are many computer programs that can aid analysis, both quantitative and qualitative, thus saving a lot of time and many headaches. But such

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programs are only an aid – they can only reflect the ideas and the understanding of the human researchers. If the data are loaded into the appropriate computer program and coded correctly, then, if the right questions based on the results of this process are asked of the data, it is likely that there will be very useful data sets that will help to answer some of the questions.

Theories and hypotheses

Earlier in this publication it was suggested that it is best to go into the research with clear objectives, but not attempt to prove a relationship between the programme and outcomes for participants. Even with clear objectives, however, it is important to have an open mind to seeing patterns and results that were not anticipated. The examples above show how the objectives and the data collected should dictate the way in which the analysis is carried out. Naturally, we all have a habit of creating theories or hypotheses as we notice things during the field research and this is fine, but these need to be tested against the totality of the evidence. The Israel Tracer Study used a process where answers to an initial set of questions led to other questions and issues to be explored. As described by the Israeli researcher:

The research was based on an abductive process, where the findings revealed in the field raise questions and an attempt is made to answer them. This is in fact a 'hypothesis on probation'. In other words, these are assumptions that require examination until such time that further observation and findings either confirm or refute them.

The research used open questions which means that the process of data analysis is very complex. It also means that where analysis is being undertaken by a group of people, they all must work to exactly the same principles and rules:

In the first stage, the responses were divided into content units, with each unit comprising a significant statement or even a phrase. For example, the sentence 'the boy looks sad, he's ashamed' was split into two separate content units: the feeling of sadness and the feeling of shame. Content units of identical meaning were combined, but if the meanings were similar but not identical, they were kept separate. For example, 'At school I study' and 'Studies at school' were combined into one content unit, whereas 'Study at school' and 'Go to school' remained separate.

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In the second stage, the content units were assembled into categories according to similarities in the content they reflected. In the third stage, the prevalence of the different categories in each group was examined. Additionally, some of the raw material was also analysed for quality of response (minimalistic compared to comprehensive, an entire story about the picture, etc.). After each of the teams had individually analysed their material, the responses were cross-referenced with the findings from the other research tools to construct the full report.

Another natural tendency is to think (or hope) that any or all positive changes in former participants are a result of the programme. But it is unwise to assume a direct relationship between outcomes that have been found and the programme. There are many events in the child's life (and/or in the global environment) that influence outcomes for children and these could have far greater effects than an early childhood programme. An example (not taken from one of these Tracer Studies) is the creation of a new industry that brought jobs to the area, lifted parents out of dire poverty and enabled them to feed, clothe and educate their children to previously unthought-of levels in a town being used as a 'control' for the intervention group. This event had a much greater impact than the early childhood programme.

It is unwise to assume a direct relationship between outcomes that have been found and the programme

The unexpected

Whether the researchers are insiders or outsiders, there will nearly always be findings that are unexpected. These might come as a pleasant surprise, or they might be negative or disappointing. Where they are negative, where they do not quite fit our vision of 'the facts', we all have an unconscious tendency to overlook them, or even to dismiss them as irrelevant, and the only way to overcome this tendency is to be aware of it. This can occur during data collection, and it can also occur during the process of analysis.

The 'negative' findings could concern the early childhood programme itself or other aspects. For example, the Kenya study found that the numbers of dropouts

from primary school were much higher than anyone had realised, including the school authorities. This was largely because neither the schools nor the education authority had related the numbers of children in the upper classes to the numbers who had entered the first class. In Botswana, on the other hand, the study found that there were fewer dropouts from primary schools than had been assumed. The original assumption arose because poor record keeping and a general inability to correctly write names in the San language had led to some children getting 'lost' in the official system. It was only when the researchers made the effort to follow up all the graduates of the preschool programme that the true situation became apparent.

In Ireland, the programme was pleasantly surprised to find that its one-year mother-infant programme had contributed to a range of improved childrearing practices seven years later. However, an important aspect of the programme is nutrition, and there was disappointment that the differences in nutritional intake between programme and control families were very slight. This is one of the factors that led to a decision to lengthen the programme from 12 to 24 months.

Negatives can, of course, be put to positive use. If, for example, an absence is identified in a study, it might be possible to rectify this in the programme in the future. The Botswana study found that many of the primary school teachers were not sufficiently aware of the early childhood programme, so the programme has been adapted to include work with them. The fact that records are missing or have been destroyed cannot be remedied during a study, but steps can be taken to ensure this does not happen again.

Why didn't we find what we expected to find?

With the best will in the world, none of us can clear our minds entirely from hopes, expectations, preconceptions, hypotheses and the belief that 'our' programme is good for the children. We have no evidence from Tracer Studies of programmes that found 'bad' effects. But we have already cited some examples where the findings were disappointing. Where this happens, it is as well to ask whether this could have been a result of the methodology – either the wrong tools or poorly applied – or is it the programme that is having either few effects or no better effects than any of the other programmes that exist?



what's that? - point to

Look pointing out of the window objects with them are all pointing to objects that were in the window and so

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Learning is an important objective for a Tracer Study: learning that can influence the present and the future. It is inevitable that the data will include comments on the programme such as the usefulness or otherwise of some of its aspects, attitudes of staff, logistics or whatever. These can all be examined against current practices, current participants can be questioned, and changes made where necessary.

Examples of this include the study in Kenya that identified a number of strategies used in the District where the Tracer Study took place that could be followed in other Districts to enhance the early childhood programmes there. In Trinidad the researchers reported that former female participants had lower self-esteem compared to former male participants, and that this seemed to be related to problems in finding a job. They suggested that the programme could pay more attention to this aspect. And, as mentioned in the last chapter, the programme in Ireland has been extended in length.

The people who provided the data in the first place – the respondents – may well provide new insights and suggestions when the integrated findings are presented to them, for example during a discussion group. In any case, it is a matter of courtesy and good practice to report back to the informants.

It is also possible that the learning can influence practice and policy at levels that go beyond the early childhood programme itself. There are likely to be instances where the Tracer Study findings are relevant to other services, such as education or health. Several of the studies mentioned here found evidence about the way the primary school system was affecting the children and families. If other services, such as maternal and child clinics, sanitation, hygiene, water, housing, transport, are falling below acceptable standards they will affect the ability of children and families to live a healthy and fulfilled life. If sufficient

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evidence has been gathered during a Tracer Study to show, for example, that dirty water affects children's health and keeps them from school, or that impassable roads mean children cannot attend school regularly, then the report of the study can be used to draw attention to these failings.

Interpreting the findings

Basically, all research is interpretation and most findings can be viewed from multiple perspectives. Even so, it is important to be clear about the level, or depth, of interpretation and what perspectives will be used.

Interpretation and discussion are important because a recital of the bare facts and the analysed data will leave many readers unsure of their meaning or significance. Without a good knowledge of the context and background, it is extremely difficult for an outsider to interpret the findings. Thus discussion of the findings, with alternative meanings, 'explanations' or interpretations, is stimulating and adds value to the report.

As to who will do the interpreting, dialogue between 'insiders' and 'outsiders', with their different perspectives, should result in a product that is very rich in content.

A particularly valuable approach is to explore possible links between the objectives and activities of the original programme and the findings from the Tracer Study such as in the following quotations:

The preschool has emerged as a very important factor in improving child development and the welfare of the family and community. (Kenya)

In general, the ADP made a difference in parenting skills and provided a basis for ensuring that trainees were well prepared for their responsibilities as parents. (Trinidad)

Three-quarters of the Community Mothers stated that their relationship with their children had improved because they were now more aware of their children's needs, listened to them more, understood them better and had more patience with them. (Ireland)

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The programme's creators sought to give the children the abilities of emotional expression, expression of needs, a sense of independence and freedom of choice in the kindergarten's activities ... The Tracer Study shows without a doubt that the Parents Kindergarten children are today equipped with a greater number of tools than their comparison group counterparts. (Israel)

In most cases, it was clear that children coming from preschools in the district were keen to make the transition to primary school. The fact that they made it as an already bonded little group made it easier for the parents to know what was expected and to follow the right procedures, as well as to provide emotional security for the children. (Botswana)

The ability of the TMP mothers to change a potentially negative experience into a positive opportunity and the will to pursue their further education and to establish themselves in a vocation is quite evident. (Jamaica)

Most reports of Tracer Studies will include conclusions, many will also include recommendations. Whether they do or not is a matter for the research team and the programme. And their content may need to be a result of negotiations between the researchers and the programme.

It is unlikely that the findings of a Tracer Study are generalisable and, while the same applies to conclusions, it may be possible to make the proposition that certain types of interventions will have certain types of effects on children or on adults. It is also possible that certain trends can be identified. And a cluster of studies with similar findings will give the programme a good chance to reach firm conclusions.

Building a case

Whatever the conclusions are, it is important that the reader can follow the threads and understand how they were reached. One approach that might be helpful is to think of the report as building up a case as in a court of law. This implies assembling all the relevant 'evidence', putting it in as logical an order as possible, discussing the findings, mentioning alternative interpretations, and then coming to some conclusions. It should be remembered that 'relevant evidence' includes not only the data from the study, but also the background

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and contextual material that will help the reader to understand and come to her/his own conclusions about the study and about the programme.

Whatever the conclusions are, it is important that the reader can follow the threads and understand how they were reached

Other important aspects include:

- making it clear whose voice is speaking (is this a quotation or evidence from a child, a teacher, a staff member? or is it the researcher speaking?);
- looking at where the children started from, not just where they have got to (for example, looking at exam results or grades of programme children from a remote disadvantaged area in relation to national averages in order to find out how far the programme children have come);
- whatever the background, the children are entering a global system – what are the implications of this for the children in the programme?

This last point is important: there are few parts of the world that 21st century technology does not reach, and young children will face a very different world from the one their own parents grew up in. This implies that they need to know about more than their own local customs and ways of doing things, and to be prepared for what is, essentially, an unknown future. The authors of the Kenya study noted in their conclusions:

The characteristics emphasized by teachers and parents were mainly those that require conformity to rules and obligations, for example, obedience, respect and trustworthiness. While those qualities are important for the proper functioning of society, other qualities – such as creativity, ambition, risk taking, questioning minds and imagination – which would tend to bring about change in the lives of the pupils, their schools, families and society as a whole, would also need to be integrated in the growing individuals ... If the educational system and the family do not emphasise qualities that can bring about change, these pupils will not bring about change when they enter adulthood and take their place as society's leaders.

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Reporting to the audience

There is, of course, a close relationship between analysing the data and reporting on the study as a whole, but if the report – particularly if it is written in academic language – does not ‘fit’ the audience it may not have the hoped-for impact. Therefore the format that is used for reporting needs to be closely connected to the objectives of the study and the intended audience.

There are always multiple audiences for this kind of report and in some cases it might be possible, or advisable, to have different versions in different formats. This is not with the intention to mislead or misrepresent, but to ensure that each audience gets the material it is most interested in, and in the formats that make it most useful.

Before the report writing begins it is worth asking a number of questions:

- who is the main audience?
- what aspects of the programme/study are of most interest to this audience?
- are there other audiences that might need a different kind of report?
- how much interpretation will there be in the report?

People who are involved in a programme are usually going to be more interested in the detail of a study than, for example, government officials who have little time to read reports and need more of an overview. Some funders are more interested in numbers (such as people and money) than the way a programme works; some audiences put more emphasis on outcomes, others on processes.

One golden rule should be ‘take nothing for granted’ and make sure that the report explains the background and context. Reports get passed around and can have a long life, so that even if this one is intended for internal use in the programme, there will be workers in the future who are unaware of earlier circumstances.

Attractive presentation is well worth the extra effort. Drawings and photographs can give additional meaning to the words and they help to break up the text, making it easier to absorb. Graphs, charts and tables are useful for presenting sets of facts and figures, so long as they are explained in words as well as visually. The overall aim is to make the report ‘readable’ and ‘pickable’.

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If it is at all possible, different versions of the report could be prepared for different audiences and different occasions. These can range from a single-page ‘factsheet’ to a lengthy document; a powerpoint presentation that highlights the main areas; shorter and longer versions on a website; a slide show; a 30-minute video; and anything in between.

Can this influence policy?

Is it possible for a study that follows up former participants of an early childhood programme to have an impact on policy within its own environment or even further afield? While it is almost impossible to attribute changes in local or national policy to any one single cause – there are always other intervening factors and variables – a compelling finding can influence policy. Discussions among participants at the Tracer Studies Workshop showed that in at least three cases (in the USA, Ireland and Kenya) the results of the studies have contributed to changes in thinking and, very possibly, to shifts in the allocation of resources. In a fourth instance (Botswana) those who run the programme are convinced they were not able to influence overall policy because they did not use the right tactics.

Perhaps the most important lesson from these experiences is that, if we wish to influence policy, the original programme must be strong and of good quality, and the research process needs to be transparent as well as rigorous – which is not necessarily the same as academically respectable.

The importance of knowing the right people to approach, and the right ways of approaching them, cannot be overestimated

The importance of knowing the right people to approach, and the right ways of approaching them, cannot be overestimated. In Botswana the programme people sent the report to the right officials but they did not follow this up personally. Even more important was the fact that the study was never officially sanctioned and

the data had not been gathered through the communications channels for communities set up by the government.

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Figures play a part in influencing policy as the Kenya researchers found:

As you do research you have to be very flexible, there are issues that you have to capture if you are going to convince people. You have to have figures. We traced the children for nine years so they could see how attendance and results went down and down. If you did it for just one year I don't think you could convince them.

In the USA and Ireland the figures were dollars and euros. The founder and lead researcher of the High/Scope Perry Preschool Study in the USA said that

If there can be said to be one 'magic' ingredient that has influenced policy, it has been the cost-benefit study ... Everyone has warm feelings about children, but because we tracked them over the years we could calculate the costs of what had happened to them – school, welfare, prison system, extra services – and show the differences between the two groups in the study.

In Ireland too, people wanted to see value for money and the programme director gave presentations on the costs of the programme which have helped her audiences to understand that:

It does not take a huge amount of money to provide this support.

But all those figures need to be backed up with the words of real people, with the stories that make us understand their realities, that show us how and why and where their footsteps led them.

And finally

This publication has tried to give a flavour of what Tracer Studies are about and the processes involved. But we must stress that we are all still at the early stages of learning and the more deeply we look into the studies that have been carried out so far, the more possibilities there seem to be.

These possibilities range far beyond the world of early childhood and each and every new study will have to find its own path – to work out its own objectives, research questions, design, methods and so on. For those involved in the Tracer Studies discussed here, the process was an opportunity to gain a

Chapter seven **Learning from the Tracer Study and using it**

deeper understanding of effects and impact and, where the programme still exists, to adjust and develop it.

Readers who implement their own Tracer Studies are welcome to share their results and findings with the Bernard van Leer Foundation (tracer.studies@bvleerf.org) so that the learning and sharing may continue.



Appendix one Publications about Tracer Studies

The publications from the Bernard van Leer Foundation can all be accessed and downloaded from the BvLF website: www.bernardvanleer.org They are also available in print (while stocks last) in single copies at no charge.

- *Following Footsteps: ECD tracer studies* (Early Childhood Matters No. 100, December 2002). This edition of the bulletin of the Bernard van Leer Foundation summarises, discusses and reflects upon the processes of Tracer Studies from a variety of perspectives. It includes articles by both researchers and programme people who were involved in these studies
- Degazon-Johnson, Rolande, (2001) *A new door opened: A tracer study of the Teenage Mothers Project, Jamaica*, Early Childhood Development: Practice and Reflections No. 13
- Njenga, Ann & Kabiru, Margaret (2001), *In the web of cultural transition: A tracer study of children in Embu District, Kenya*, Early Childhood Development: Practice and Reflections No. 14
- le Roux, Willemien (2002), *The challenges of change: A tracer study of San preschool children in Botswana*, Early Childhood Development: Practice and Reflections No. 15
- Griffiths, Jean (2002), *To handle life's challenges: A tracer study of SERVOL's Adolescent Development Programme in Trinidad*, Early Childhood Development: Practice and Reflections No. 16
- Molloy, Brenda (2002), *Still going strong: A tracer study of the Community Mothers Programme, Dublin, Ireland*, Early Childhood Development: Practice and Reflections No. 17
- Levin-Rozalis, Miri & Shafran, Naama (2003), *A sense of belonging: A tracer study of Almaya's Parents Cooperative Kindergarten, Israel*, Early Childhood Development: Practice and Reflections No. 19

published by the **High/Scope Educational Research Foundation**, 600 North River Street, Ypsilanti, MI 48198-2898, USA. www.highscope.org

- Epstein Ann S, Montie Jeanne, Weikart David P (2002), *Supporting families with young children, the High/Scope Parent-to-Parent dissemination project*, Monographs of the High/Scope Educational Research Foundation No 13; Ypsilanti, Michigan: High/Scope Educational Research Foundation

forthcoming from the Bernard van Leer Foundation:

- Report of a tracer study of children and families from the Christian Children's Fund early stimulation programme in Honduras
- Report of a 20-year follow-up of children and families from the Promesa programme, Colombia

Appendix two **Some useful resources for ECD and research**

The following is only a very small selection of the resources available. The selection is mostly confined to international and electronic sources but there will be many more materials available from libraries and universities in your own country.

The resources are listed under the following headings: Early childhood development; Longitudinal studies of early childhood programmes; Research; Research methods; Data and statistics.

Early childhood development

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www.bernardvanleer.org

The Foundation has a Resource Centre at its premises in The Hague (telephone or e-mail for an appointment) which contains a unique collection of documents produced by ECD programmes around the world, as well as a collection of books and journals on ECD. The website includes general and specific information on the work of the Foundation and the programmes it supports; details and downloads of publications; and links to other relevant websites.

Children's House

www.child-abuse.com/childhouse

This website is a collaborative initiative of 15 different organisations (AIFS, CIDEF, Children's Rights Centre, Childwatch, CG, CRIN, Family Life Development Centre, IIN, NOSEB, Radda Barnen, ISCA, UNICEF, UNESCO, World Bank and WHO). It is specifically designed to serve as an interactive resource center – a cyberspace meeting place for all professionals involved in work with, for or related to the well-being of children.

Consultative Group on Early Childhood Care and Development (ECCD)

www.ecdgroup.com

The website of the international, inter-agency group that is dedicated to improving the condition of young children at risk. Contents include on-line editions of the Coordinators' Notebook.

Early Childhood and Family Education Unit (UNESCO)

www.unesco.org/education/educprog/ecf/html/eng.htm

Website of the unit at UNESCO that coordinates research, activities and initiatives undertaken by UNESCO in early childhood care and education, parent and family education, early childhood research, Education for All (EFA)

ERIC – Clearinghouse on Elementary and Early Childhood Education

<http://ericps.crc.uiuc.edu/eece/index/html>

This site is a very comprehensive web resource with a great variety of topics on elementary and early childhood development and education.

Appendix two Some useful resources for ECD and research

RNW – Radio Netherlands World Service – The Foundation of Learning

www.rnw.nl/development/html/childhoodindex.html

The Foundation of Learning is a collaboration between the Bernard van Leer Foundation and Radio Netherlands. It presents in text, picture, audio and video, a range of experiences in Early Childhood Development in three African countries. The selected projects and stories from Kenya, Nigeria and South Africa highlight the importance of the early years.

World Bank – ABC of ECD

www.worldbank.org/children

This website (in English, Arabic, Portuguese, Spanish) is a resource to assist policy makers, programme managers and practitioners in their efforts to promote the healthy growth and integral development of young children.

International non-governmental organisations involved in early childhood programmes

Aga Khan Foundation: www.akdn.org/agency/akf.html

Bernard van Leer Foundation: www.bernardvanleer.org

Care International: www.care.org

Christian Children's Fund: www.christianchildrensfund.org

Plan International: www.plan-international.org

Save the Children Alliance (International): www.savethechildren.net

World Vision International: www.wvi.org

Longitudinal studies of early childhood programmes

Most of the early childhood longitudinal studies that exist have been implemented in industrialised countries, mainly in the USA. One notable exception is a study in Turkey of the **Turkish early enrichment project**. This two-year programme worked with mothers and children aged three to five years old. These families, and a randomly selected control group, were followed up four years after the programme began, and then again six years later. The findings of both these studies have been reported in various articles in books and journals. One of the more comprehensive of these is:

Kagitçibasi C (1993), 'A model of multipurpose non-formal education: the case of the Turkish Early Enrichment Project' in Eldering L & Leseman P, *Early intervention and culture, preparation for literacy, the interface between theory and practice*, The Hague, UNESCO Publishing

The Effective Provision of Preschool Education (EPPE) Project

www.ioe.ac.uk/cdl/epe/index.htm

This United Kingdom study is focusing specifically on effects of different forms of early years provision. 3,000 children were assessed around the age of three in 1997 when they entered a facility, and another 200 children form a 'home' sample for comparison. These children have been followed up until age seven.

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Competent Children, New Zealand

www.nzcer.org.nz/research/compchild.htm

A research project funded by the New Zealand Ministry of Education to track the development of a group of children from age 5 through school with a sample size of 500. The 10 competencies being explored are those 'linked with successful learning, and with satisfying economic and social participation'. Reports at age 10 and age 12 are published and an age 14 follow-up is being conducted 2003.

The Carolina Abecedarian Project

Frank Porter Graham Child Development Institute, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-8180, USA.

website: www.fpg.unc.edu/~abc/index.htm

This is a study of 57 people who were in a high quality child care setting at the Institute. They have been followed up from infancy to age 21 and an age 30 follow-up is envisaged.

Chicago Longitudinal Study

www.waisman.wisc.edu/cls

The study investigates the educational and social development of a same-age cohort of 1,539 low-income, minority children (93% Afro-American) who grew up in high-poverty neighbourhoods and attended government-funded kindergarten programmes in the Chicago Public Schools in 1985-86. The children have been followed for over 18 years.

Early Head Start and/or Head Start, USA

www.acf.dhhs.gov/programs/core/ongoing_research/ehs/ehs_intro.html

Early Head Start began in 1995/96 and by mid-2002 was reaching 55,000 children in 664 communities. It is aimed at low-income families with pregnant women, infants or toddlers. Programmes in the sample include all programme approaches and are located in all regions as well as urban and rural settings.

NICHD Study of Early Child Care and Youth Development (SECC)

<http://secc.rti.org/summary.cfm>

This study was initiated in 1989 by the National Institute of Child Health and Human Development 'to answer the many questions about the relationship between child care experiences and characteristics and children's developmental outcomes'. It includes 1,364 children from 10 locations across the USA.

Perry Preschool Study

High/Scope Educational Research Foundation, 600 North River Street, Ypsilanti, Michigan 48198-2898, USA. www.highscope.org

This study has followed the lives of 123 children since 1962, half of whom were in the Perry Elementary School in Ypsilanti. Follow-ups took place annually from ages 3 to 11, then at ages 14-15, 19 and 27. An age 40 follow-up is currently under way. The latest publication is:

Appendix two Some useful resources for ECD and research

Schweinhart L J, Barnes H V, Weikart D P (1993) *Significant Benefits: the High/Scope Perry Preschool Study through age 27*. The High/Scope Press (address above)

The Future of Children

Volume 5, No 3 of this journal (Winter 1995) was devoted to 'Long-term Outcomes of Early Childhood Programmes', the majority of the programmes being in the USA. The journal is published by the David and Lucile Packard Foundation, Centre for the Future of Children, Los Altos, California, USA and is accessible on-line: www.futureofchildren.org

Research

Many of the organisations mentioned under other headings in this appendix conduct research of various kinds. Of particular use is the ERIC database (<http://ericps.crc.uiuc.edu/eece/index/html>) which contains details, with abstracts, of most of the published research in ECD over the past decades.

The International Child Development Centre, known as the Innocenti Research Centre, is the main research arm of UNICEF:

UNICEF Innocenti Research Centre, Piazza SS. Annunziata 12, 50122 Florence, Italy. Tel: +39 055 20 33 0; Fax +39 055 24 48 17; e-mail: florence@unicef.org; website: www.unicef-icdc.org

The Centre conducts research in specific child-related fields and has a range of publications. The Innocenti Library contributes to study and research into childhood and adolescence and child rights by documenting and creating resource information; the resources are available to researchers, to those working in the field, and to all those interested in issues affecting children and young people.

Organisation for Economic Cooperation and Development (OECD)

Indicators, policy papers, reviews and links concerning human and financial resources invested in education, how education and learning systems operate and evolve, and on the returns to educational investments in OECD countries. Includes papers and reviews on Early Childhood Education and Care. Documents in English, French, Spanish.

website: <http://www1.oecd.org/els/education/ei/eag/>

The Childwatch International Research Network

Childwatch International is a nonprofit, non-governmental network of institutions involved in research for children. It aims to initiate and coordinate research and information projects on children's living conditions and the implementation of children's rights as expressed in the UN Convention on the Rights of the Child. website: www.childwatch.uio.no/index.html

Society for Research in Child Development

University of Michigan, 3131 South State Street, Suite 302, Ann Arbor, MI 48108-1623. Tel: (734) 998-6578; Fax: (734) 998-6569; E-mail: srccd@umich.edu

SRCD is a multidisciplinary, not-for-profit, professional association with an international

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membership of approximately 5,000 researchers, practitioners, and human development professionals. The society publishes the journal *Child Development* and organizes a biennial conference for researchers and students in child development. website: www.srcd.org

International Development Research Centre (IDRC)

A public corporation created by the Canadian government to help communities in the developing world find solutions to social, economic, and environmental problems through research. IDRC is not specifically involved in research in education or early childhood. The website is in English and French: www.idrc.ca

Research methods

There are hundreds of books on the many different research methods and it is almost impossible to make specific recommendations. Those who have studied research methods will already have their favourite volumes, while those who have never studied research could easily get lost in the mass of data available. Perhaps the best advice is to enquire at local libraries and universities and research institutions or to do searches on the internet for books and articles and people that seem relevant to your own circumstances. Beginners should certainly beware of books that go into too much detail as overviews are far more helpful to start with. One such book that might be useful is:

Robson, Colin (1993) *Real World Research: A resource for Social Scientists and Practitioner-Researchers*. Oxford, UK, Blackwell Publishers Ltd.

This is written clearly and with plenty of boxed panels, explanations and examples.

For those who want to interview children, the following might be useful:

Delfos M F (2001) *Are you listening to me? Communicating with children from four to twelve years old*. Amsterdam, SWP publishers.

This book is also available in Dutch (the original version) and Spanish:

Delfos M F (2000) *Luister je wel naar mij? Gespreksvoering met kinderen tussen vier en twalf jaar*. Amsterdam, SWP Publishers

Delfos M F ((2001) *¿Me escuchas? Cómo conversar con niños de cuatro a doce años*. The Hague, Bernard van Leer Foundation.

Data and statistics

A link index developed by the Dutch Statistical Agency (<http://www.unece.org/stats/handbook/handbook.html>). The register provides links to official and reliable statistical resources from a wide range of countries available on the Internet.

The World Bank website (<http://www.worldbank.org/data/databytopic/databytopic.html>) includes a database that gives an overview of indicators for every country on early childhood, education, development progress, etc.

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UNICEF Statistics (<http://www.unicef.org/statis/>) The statistical database of the United Nations Children's Fund gives an overview of basic country indicators and data on children. Other data on children can be found on-line in their yearly publication **The State of the World's Children** (<http://www.unicef.org/infores/pubstitle.htm>). The 2001 edition focused on early childhood.

UNESCO Statistics (www.unescostat.unesco.org/en/stats/stats0/htm) The database of the United Nations Educational, Scientific and Cultural Organization gives global and internationally comparable statistics on education, science, technology, culture and communication.

WHO (<http://www3.who.int/whosis/menu.cfm>) The Statistical Information System of the World Health Organization contains health-related information on topics such as the causes of infant mortality, immunizations, etc.

PAHO (<http://www.paho.org>) The website of the Pan American Health Organization (in English and Spanish) contains a database of health indicators of the Americas.



Photographs

Introducing Tracer Studies

Cover from left to right	Enjoying the Early Stimulation Programme, Honduras, <i>photo: Elaine Menotti</i> Preschool children in D’Kar, Botswana, <i>photo: Matthias Hofer</i> Standard 1 girls in Embu, Kenya, <i>photo: Johnson Mwangi</i>
page 6	Standard 1 girls in Embu, Kenya, <i>photo: Johnson Mwangi</i>
page 12	Mother and child, Israel, <i>photo: Almaya</i>
page 16	The Early Stimulation Programme as seen by a community in Honduras, <i>photo: Ruth Cohen</i>
page 25	This boy, a patient in the TB ward, is using a paintbrush for the first time in his life, <i>photo: Matthias Hofer</i>
page 30	Portrait of a child, Israel, <i>photo: Almaya</i>
page 39	Programme children, Ireland, <i>photo: courtesy Community Mothers Programme</i>
page 40	‘Do as I am doing’, preschool in Embu, Kenya, <i>photo: Johnson Mwangi</i>
page 52	Mother and child, Bokamoso Preschool Programme, Botswana, <i>photo: Matthias Hofer</i>
page 67	Children at play, <i>photo: Almaya</i>
page 68	Absolute concentration in the Early Stimulation Programme, Honduras, <i>photo: Elaine Menotti</i>
page 76	Mutual concentration, <i>photo: courtesy Children of Kiwanja Kimaye Child Development Project, Kenya</i>
page 84	<i>Photo courtesy Community Mothers Programme</i>
page 93	‘What children say’, Early Stimulation Programme, Honduras, <i>photo: Elaine Menotti</i>
page 94	Teenage Mothers Project, Jamaica, <i>photographer unknown</i>
page 102	Preschool children in D’Kar, Botswana, <i>photo: Matthias Hofer</i>

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Introducing Tracer Studies:

guidelines for implementing tracer studies in early childhood programmes

How can we find out whether development programmes have a lasting impact? In early childhood programmes, we can usually tell when there is an immediate impact on the children — we see it in their behaviour and in their developing skills and abilities, and we can measure it in their height and weight and general health status. But are these lasting gains that will sustain them through their first years of school and beyond?

Introducing Tracer Studies describes an approach to answering these questions, an approach that has been developed through 10 studies that followed up former participants of early childhood programmes. These former participants are the children (now adolescents and young adults), their parents, their educators and caregivers and, in some cases, the surrounding communities.

From Africa (Botswana and Kenya) to Latin America (Colombia and Honduras), the Middle East (Israel), the Caribbean (Jamaica and Trinidad), Europe (Ireland), India, and the USA, researchers traced individuals and organisations to find out how they were faring after a period that varied from three to 20 years after they left the programme. The approaches and methods described here can be adapted by other programmes to fit their own contexts and needs. Each programme will have to formulate its own research questions and objectives: these guidelines will help them to devise a framework and plan for carrying out their own studies to follow the footsteps of their own former participants.