

Small Steps is an Early Intervention Program for young children with developmental delays. The kit consists of eight books, and an optional videotape program.

Book 1: Introduction to Small Steps

This introductory book presents the background to Small Steps, and suggests ways in which it can be used.

Book 2: Your Child's Program

This book explains how to select goals for the individual child, and how to help the child achieve these goals in the context of family life.

Book 3: Communication Skills

This book is concerned with language learning, at both the preverbal and verbal levels. Language is seen in the context of social interaction, and skills are taught through play and 'everyday' activities.

Book 4: Gross Motor Skills

This book presents the skills which involve the large muscles of the body. These enable a child to sit, crawl, walk, climb, catch a ball and so on. It has been prepared by physiotherapists experienced with young children with disabilities.

Book 5: Fine Motor Skills

Fine Motor skills use the small muscles of the hand and eye. They range from the baby's first grasp of the parent's finger to complex skills such as drawing and cutting. Also included are problem-solving skills and the development of concepts such as colour, shape and size.

Book 6: Receptive Language Skills

Receptive Language skills involve the understanding of the language of others. They enable a child to attend to what others are saying, to follow directions and, most importantly, to use language him or herself.

Book 7: Personal and Social Skills

In this book we look at skills that help children to relate to others, to play and to achieve independence in eating, toileting, dressing and grooming.

Book 8: Developmental Skills Inventory

The D.S.I. draws together the individual parts of Small Steps. It is a series of checklists used for assessing the child and as a guide for setting objectives.

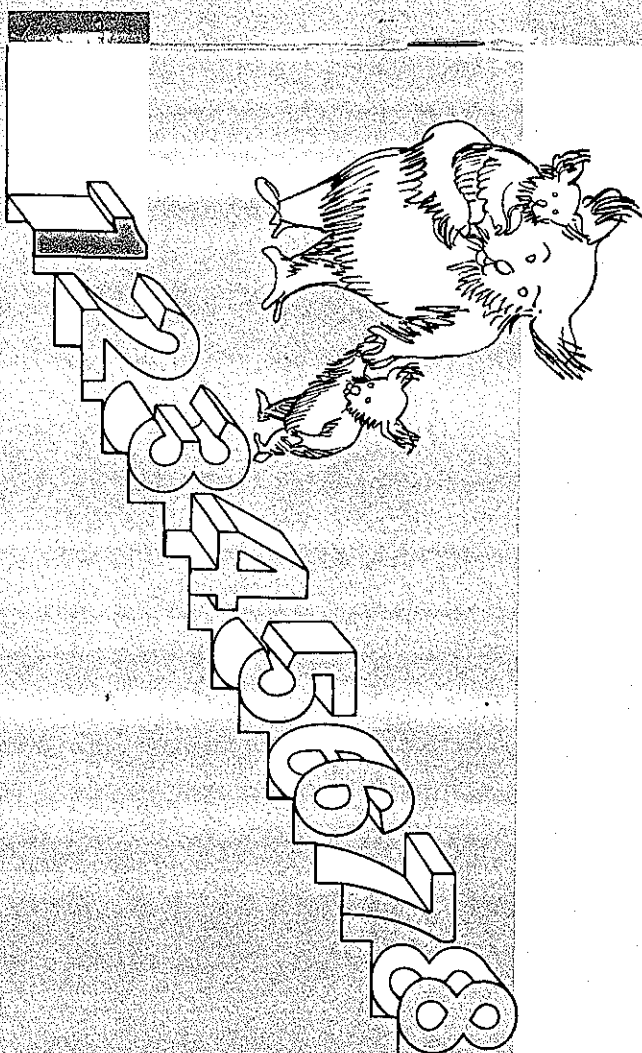
SMALL STEPS

AN EARLY INTERVENTION PROGRAM
FOR CHILDREN WITH DEVELOPMENTAL DELAYS

Book 1 Introduction to Small Steps

Moira Pieterse and Robin Treloar
with Sue Cairns, Diana Uther and Erica Brar

Macquarie University Sydney



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Small Steps

is dedicated to
the children of the
Down's Syndrome Program
at Macquarie University,
and to their families,
and, most especially, to

Suzy Gordon
Elisabeth McGlinchey
Myfanwy Thomas
Jillian Adams
Kelly Muras
Kate McCarrigle
and
Esther Suriadi

Foreword

Remarkable progress has been made in ^{the} ~~the~~ education of young children with intellectual disability. The majority now enjoy lifestyles far superior to what would have been the case two decades ago. Their parents or caregivers recognise their needs for love, attention and stimulation; they accept that these children, like other children, can benefit from school and a normal range of social and recreational experiences. One consequence has been a marked drop in the numbers of children placed in institutions or other forms of out-of-home care.

These advances represent one of the success stories of the last quarter century. But they were hard won and resulted only from concentrated efforts by parents, professionals and advocacy groups. A significant contribution has been made by specialised units such as the Down's Syndrome Program at Macquarie University, which has since 1974 been providing a range of teaching and advisory services for children with Down's Syndrome and their parents. This program has been extremely influential in establishing a model for parent support and teaching and is perhaps best known for this. However, a significant factor in its success has been the development and production of a series of carefully constructed teaching programs and materials for use by parents and professionals. Most of these are in widespread use both in Australia and abroad. The latest of these is *Small Steps*.

Small Steps is a program to aid in the teaching of young intellectually disabled children. It is derived from a fusion of considerable teaching experience, knowledge of contemporary research on how children learn, and careful trialling. It is aimed primarily at parents, who are so often skilled and sensitive natural teachers. It assumes no prior knowledge of child development or formal teacher training, and uses simple, everyday language in preference to jargon. The optional audiovisual tapes provide an attractive illustration and commentary on the methods.

I believe that *Small Steps* will add significantly to the resources available to parents, caregivers and professionals, and will emulate the widespread use and success of its forerunners, *The Macquarie Program for Developmentally Delayed Children* and *T.E.L.L. — Teach Early Language for Living: A Communication Program*. All concerned — Moira Pieterse and Robin Treloar and their co-workers, the teachers within the Down's Syndrome Program, the parents and above all the children whose efforts and co-operation have been so important — are to be commended for this first-class project.

James Ward
Professor of Education
and Director of the
Special Education Centre
Macquarie University

The Authors

Moira Pieterse is a lecturer in education at Macquarie University. She has directed the Macquarie University Down's Syndrome Program since its inception in 1974. She has been closely involved in the dissemination of information about early intervention both in Australia and overseas. She was instrumental in establishing the *Small Steps* project and has overseen its progress.

Robin Treloar taught in the Down's Syndrome Program from 1979 to 1983. She was teacher in charge from 1981. She has been involved in the *Small Steps* project since its inception, writing and/or editing the text and compiling the manuscript. She has also been involved in tertiary and in-service education and works as a private consultant to schools, pre-schools and families.

Diana Uther and Erica Brar prepared the gross motor section (Book 4) of *Small Steps*. Both have worked with the Macquarie Program. They are physiotherapists with extensive experience with young children with disabilities.

Sue Cairns was the teacher in charge at the Down's Syndrome Program from 1975 to 1980. She established an early intervention program in Hong Kong, based on the Macquarie Program, and has worked in tertiary education, in-service education and private practice. She was joint author with Moira Pieterse of *T.E.L.L. — A Communication Program*. She has been a consultant to the *Small Steps* project.

Acknowledgments

Many people have helped us to complete this project — some through direct and practical assistance, and others through their teaching and inspiration.

The parents and children within the Down's Syndrome Program at Macquarie University have contributed at many levels. We thank them for their co-operation and participation in the creation of the videotape programs and for their contributions to the text. We thank them, too, for helping us to make sense of theory and for showing us what works and what doesn't. Each parent and each child made a unique contribution to the program and to our understanding.

Many teachers who worked within the program have contributed to this project. Susan Wade, Rosemary Morrison, Philippa Bragg, Beth Facer and Jeanne Britz appear in the videotape programs; we thank them for their advice and support and for their patience in the face of disruptions to their routines. Others to whom we owe thanks include Sandra Leonard, Betty Hook, Brian Pirani, Janet Haenke and Anyte Stelken.

Geoff Batley joins us in thanking those who contributed to the making of the videotape programs, both through technical assistance and through sharing their thoughts and experiences on camera. Our special thanks go to the families within the program, and to residents of Galston and Arcadia, who graciously allowed us to film within their homes. Geoff's own contribution goes well beyond his time and professional expertise. We thank him for his constructive involvement throughout this project.

To Professor Bernie Thorley, for his role in the establishment of the Down's Syndrome Program, and to Professor James Ward for his continuing support, we extend our appreciation.

Lea Maher read the manuscript of the gross motor section (Book 4) and gave valuable advice.

Our thanks go to Patrice Baldwin and to the clerical staff of the School of Education at Macquarie University, particularly to Lucy Kelly and Edith Lasak for typing the manuscript.

Lynn Gemmill edited the manuscript with patience and good humour. Out of chaos she created order, and it has been a pleasure to work with her. Thanks, too, to Adrian Clayton for his perseverance.

To our families, particularly the Pieterse family, the Treloar family and Graham Williams — our heartfelt thanks for your ongoing interest and encouragement.

Moira Pieterse
Robin Treloar

CHAPTER 1

What is *Small Steps*?



Small Steps is an early intervention program for developmentally delayed children, up to the developmental age of four years. Early intervention means starting as early as possible to help disabled children to reach their full potential.

Small Steps is addressed to parents of developmentally delayed children. It gives practical guidelines for teaching a child in the home environment. It recognises the parents as the most important teachers of the child. It could also be used by teachers, therapists and students.

Small Steps is comprehensive not only in the scope of its curriculum, but in its approach to the subject of *how to teach*. The basic principles are there, of course, but so are the specific practical suggestions — hundreds of them — based on years of direct experience, and on what parents say about what works for them.

Small Steps can be used flexibly — as a resource for occasional 'dipping in' by the experienced teacher, or as a complete do-it-yourself guide for the novice. It is an Australian product reflecting Australian conditions.

WHAT IS THE BASIS FOR *SMALL STEPS*?

Small Steps is closely based on the Macquarie Program for Developmentally Delayed Children. This is the program material developed in the Down's Syndrome Program at Macquarie University, Sydney. (Note that the material is not designed for use only by children with Down's Syndrome.)

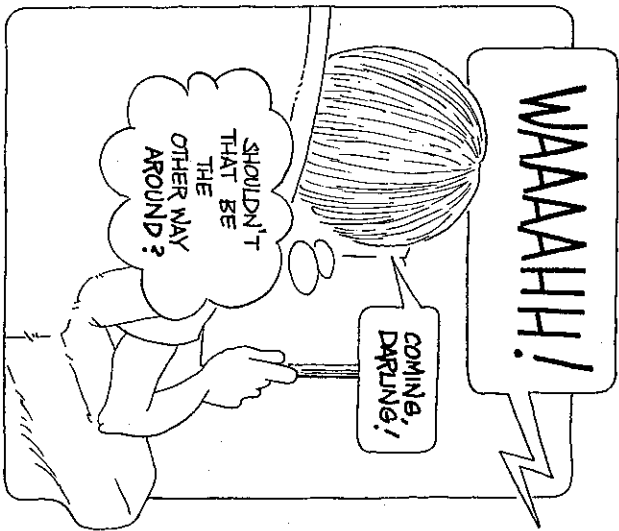
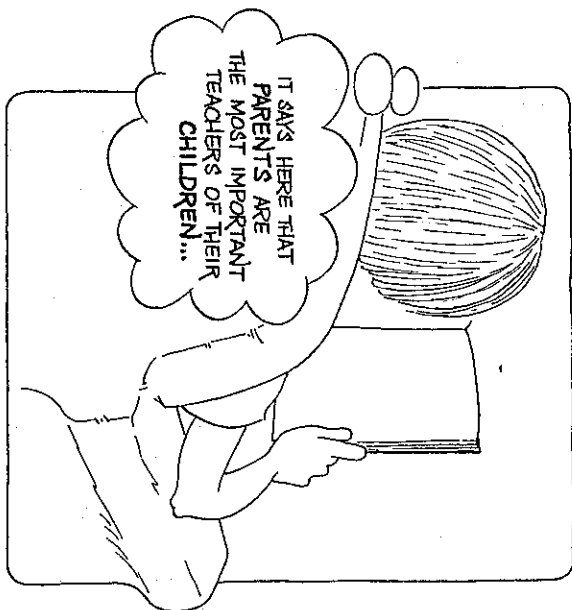
The Macquarie University Down's Syndrome Program was Australia's first early intervention program, and has had a deep and lasting influence on work with young disabled children throughout Australia and beyond.

These are some principles of the Macquarie Program which are reflected in *Small Steps*:

- All children can learn. The intellectually disabled child learns more slowly, but he or she can learn.
- Disabled children need to learn the kinds of skills that all children learn and use — skills which will help them to play, to interact with others, to achieve maximum independence and to be part of the community.
- The parents are the child's most important teachers.
- The early years are crucial for learning. Teaching should begin as soon as possible after a problem is recognised — hence the term *early intervention*.
- Well-designed assessment and teaching techniques promote more efficient learning.
- Every child is different and every family is different. A successful program must meet the needs of both the child and the family.

Small Steps is not an instructional manual on being a 'good parent', nor does it tackle the huge subject of what it's like to be the parent of a disabled child. The information you will find here can and should be supplemented by other materials, and hopefully by personal contact with people who know you and your child.

Small Steps is designed as a practical resource, to be used in whatever way suits you best. It is written in the recognition that the most important things you can give your child are being given already, through your love and acceptance of your child, and the care, both physical and emotional, that you give him.



CHAPTER 2

The Macquarie Program



Small Steps is based on the teaching methods and curriculum developed in the Macquarie University Down's Syndrome Program. The Macquarie Program is an early intervention program; that is, it aims to make the most of a child's potential through careful teaching in the early years of life, or from the time that a delay in development is first observed.

Until the 1970s 'early intervention' was a term rarely heard in Australia. Most intellectually disabled children received no systematic help from specially trained professionals until they started school. Most special assistance for very young children, beyond that of medical care, was reserved for those with physical rather than intellectual disabilities. Because there was less awareness of what could be achieved with intellectually disabled children if an early start was made, many parents were advised to institutionalise children who may have done very well at home, given the services that are available today. Many more were advised to give their children love and physical care until it was time for them to start a special school, and to confine any thoughts about 'education' to areas such as toilet training and feeding skills.

Of course, there were fortunate families who received excellent assistance from occupational therapists, physiotherapists, speech therapists and community nurses with a personal vision of what could be achieved. And there were families who taught their children effectively without any support at all. There were also academics and teachers who were questioning established ideas. New theories of child development were emphasising the importance of learning experiences during the first few years of life. If these experiences were so crucial to normal children, why not to disabled children too?

These reports suggested that with careful teaching, right from the moment of diagnosis, children with learning disabilities could learn a high proportion of the skills that normal children

learn. Some of the most promising reports were coming from the Seattle (Washington) Down's Syndrome Program. Among those interested in these reports was a small group of staff members from the School of Education at Macquarie University. Funding was obtained to replicate the Seattle Program at Macquarie, and by 1974 the Macquarie University Down's Syndrome Program was under way.

The Macquarie Program was the first educational early intervention program in Australia, so the staff were concerned to find out not only whether early intervention worked, but also how it could be adapted to suit Australian conditions. A third concern was to demonstrate the methods and results to interested people around Australia, through publications and through the model classroom, which was designed to allow others to observe.

Now there are early intervention programs all around Australia, many of them using the methods and materials developed at Macquarie. The Macquarie Program has also been replicated in Hong Kong, and interest has been shown in other Asian countries.

The growth of early intervention has been due to its results. Comparative studies have shown that children receiving early intervention learn a higher proportion of skills before school entry than similar children without such help. More disabled children than ever before are attending their regular local schools, many remaining within the mainstream system throughout the primary years. Moderately and even severely disabled children are learning to read and write, and to communicate effectively with others. Children are learning these things, not because they have been given some sort of 'cure', but because they have been taught the right things at the right time, in the right way. This *Small Steps* kit aims to help you to do just that, with your child.

CHARACTERISTICS OF THE MACQUARIE PROGRAM

Here are some of the crucial characteristics of the Macquarie Program, and hence of the approach you will find in *Small Steps*.

It aims to help intellectually disabled children to lead the most normal lives possible. The more that disabled children learn to do, the more they can take part in normal family and community activities.

It is an educational program, rather than a therapeutic program. That is, it works through teaching the child the skills he is ready to learn, rather than administering treatment of underlying causes or conditions. Where such treatment is needed, it is seen as the role of the child's medical practitioner. The teachers and therapists at Macquarie aim to teach the children skills, often by teaching the parents how to teach at home.

It teaches normal developmental skills. This means that it teaches the skills that children normally learn as they develop — skills which will help them to develop further. You will not find any activities within *Small Steps* that could not be done quite appropriately with a normal child; it's just that with a normal child less deliberate teaching is necessary.

It teaches in small steps. Hence the name of this kit! Disabled children learn in just the same way that all children learn, but they learn more slowly. A challenge that may be a formidable obstacle to a disabled child can be met if it is presented as a series of small challenges.

It is based on careful assessment. Disabled children learn best if they are presented with the right task at the right time. So, before teaching begins, time is spent finding out exactly what the child can do, and hence what he is ready to learn next.

Children work towards objectives. The skills that a child is learning at any given time are called his objectives. Objectives describe what the child will be doing when he has achieved the skill. They help teachers and parents to keep in mind exactly what they are aiming for.

Every child has an individual program. A child's objectives at any time are termed his 'program'. What is included in a program depends on what the child is ready to learn, and the time and resources available to teach him. Programs are designed to help the child experience success, and

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to be practical and workable for the family. Most skills taught in *Small Steps* are drawn from the Macquarie Program's curriculum, known as the *Developmental Skills Inventory*, but the teaching methods can be adapted to teach any skill that a child needs to learn.

The teaching techniques are readily learned and require no special technology. They are based on years of careful investigation to find effective and practical teaching methods that can be used in the home as well as in the classroom. Often these techniques can become part of the general handling of the child, so that many skills can be taught as a part of everyday life, without special time being required.

WHAT HAPPENS IN THE PROGRAM

Children begin attending the Program, with their families, when they are about six to eight weeks old. They attend once a week, for a session with their teacher and with their physiotherapist. The teacher and physiotherapist talk to the parents about the child's progress over the past week. They observe the child to see whether he is ready to learn something new and they demonstrate ways of teaching to the parents. Whenever possible, they suggest ways to involve teaching in the general handling of the child, so that no special time need be set aside.

Right from the start, each child's individually designed program covers many areas of development — the co-ordination of hand and eye, the understanding of what is said by others, the development of the large muscles of the body, the child's expression of his feelings and needs, his ability to play and to socialise, and his self-care skills.

At about eighteen months of age the child joins the Toddler Class, or early preschool. Now he attends three times a week, for two-hour sessions. During these sessions he will have short sessions on his own with his teacher, working on his individual program. These sessions last about ten or fifteen minutes and may be in a quiet corner at a table or in a play setting. Most of the child's time is spent in play activities, which are designed to help him to use his skills in enjoyable and practical ways. He also learns to be a member of a group, during story-time, music and other group activities. This is an important preparation for integration into a normal preschool.

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Regular discussions with the parents ensure that the classroom and home environments are helping the child towards the same goals.

During his fourth year the child moves into the Advanced Preschool Class. He still attends three times a week but the sessions are now a little longer. There is more emphasis on group work and on group play. When he is ready the child is introduced to the preacademic areas of reading, number and writing, as well as continuing to progress through other skill areas. Most of his time is still occupied by normal preschool activities such as painting, block play, dressing up, playing outdoors and so on.

By this stage the child is also attending his regular local preschool at least one day a week. The Program teachers visit the preschool to talk to the teachers there, and to observe how the child is using the skills he has learned at Macquarie.

Even though the teachers take on a wider role as time goes by, the child's parents continue to be his most important teachers. They spend more time with the child than anyone else and they know their child better than anyone else. Very often the parents teach the teachers too! All the teachers who have worked at Macquarie feel an immeasurable debt to the parents with whom they have worked, for the insights they have given not only about individual children, but about the very nature of teaching and learning.

SOME QUESTIONS AND ANSWERS

Here are some questions we have been asked about the Macquarie Program — and about *Small Steps* — and our answers.

Is the Macquarie Program only for children with Down's Syndrome?

Almost all the children who have attended the Macquarie Program are children with Down's Syndrome. This is because for research purposes it was necessary to have a group of children whose disability was evident at birth, and who could be expected to have roughly the same potential to learn.

But the methods and materials have not been designed specifically for children with Down's Syndrome. They have been used with children with all kinds of disabilities, from mild to severe in effect. They have been used with children who were progressing quite normally in most areas, but showed a specific area of delay, such as

language. They are designed to be adapted to suit the needs of the individual child.

How closely does Small Steps follow the Macquarie Program?

The curriculum you will find in *Small Steps* is identical to that used at Macquarie, except that *Small Steps* covers the age range from birth to four years, while the Macquarie Program also includes a curriculum for five-year-olds. We chose the earlier cut-off point for practical reasons, and the older age materials are available separately. Ordering details are given in Chapter 5.

The assessing and teaching methods described for *Small Steps* are identical to those used at Macquarie.

Can Small Steps be used in conjunction with another early intervention program?

Yes, provided that you discuss this with your child's teachers and/or therapists. Otherwise, conflicting goals could be set and this could be confusing to both you and your child. If your child attends an early intervention program, *Small Steps* could be a source of extra ideas, or points for discussion, but ultimately the people who know your child (you first and your teacher or therapist second) are best equipped to decide the right approach in your situation.

You say that my child will learn more with early intervention than without it. But what are the long-term effects?

This is a hard question to answer, because early intervention as we know it hasn't been around long enough for many of those involved to have reached adulthood.

It is clear that five-year-old children who have received early intervention have a higher proportion of normal five-year-old skills than similar children who have not. Whether this remains true for, say, eighteen-year-olds will become clear with time.

We believe that the wider range of opportunities available to children who have had early intervention — opportunities for contact with their peers, for greater independence, for more effective communication with others — will be reflected throughout their lives. To a large extent, the challenge lies with those who provide education for older children, and those who determine employment policy, to ensure that children maintain the advantages provided by their earlier childhood experiences. There is also a challenge, for those of us (all of us?) who seek to influence the decision-makers.

How much time will I need to spend teaching my child at home?

You are teaching your child at home whether you are following an early intervention program or not! Children take up our time — some of us would say all our time — regardless. While your child is very young, little or no special time need be set aside for teaching, because you can involve teaching in everything you do with your child. Rather than spending more time, you will be spending some of your time differently — or at least with more awareness of why you are doing the things that you do.

Even if teaching your child does not take much extra time in objective terms, it may well *feel* as if it does. It can become such an absorbing interest or concern that it seems to affect everything — at times, anyway. So, saying that it won't take much extra time is not the same as saying that you'll hardly notice the difference! The question is whether you will find this difference in the way you spend your time, and the things you think about when you are with your child, enjoyable and rewarding. While few parents deny the stress that is sometimes involved, few fail to find it worthwhile, both for their children and for themselves.

Starting an early intervention program is like starting anything new. It takes more time in the early stages, until you are used to it and have a system set up and working. If you are using *Small Steps* there will be quite a lot of reading to do before you start, and your assessment of your child will take some time. Keep in mind that there is no rush about this: you can do it little by little. Once you have set up a program for your child and started teaching, time spent in reading and preparation will decrease.

COMMENTS FROM PARENTS

When talking to parents at Macquarie we asked them for their comments about what it's like to be involved in an early intervention program. Here are some of the replies.

Having David in the Macquarie Program has been a great benefit to him and to the family as a whole. It has taught me how, when and what to teach him, and I feel I wouldn't have known this, even though I have two other children. It has also been a benefit with my friends. It helps them to understand more about handicapped children.

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I haven't had to give up any activities to work on David's program. Our lifestyle has remained the same. Dedicating time with David has made me more tolerant and understanding. I feel I'm rewarded when he masters a skill, so it's well worth the effort to help him.

When David was born I was completely devastated, only because I had no knowledge of handicapped children. Now, after seeing what they can achieve through hard work, I know David's future will be a lot brighter than the grim thoughts I first had.

Starting a program with one's handicapped child is very helpful and it initiates a responsible outlook for the child's progress and future. A new dimension is added to the parent's outlook on life and it can be a reinforcement to one's family and social life. The advice is plainly to learn to accept the new situation of one's handicapped child with positivity and foresight.

I have had to give up certain social activities, but these activities would have been hindered by a normal newborn child nevertheless. However, the immense rewards you are given by dedicating your time to the program far outweigh these little pleasures. It is more difficult for Alana to perform certain skills that are taken for granted in a normal child. But when she does master them the look on her face — showing achievement and independence — makes that time even more worthwhile and gratifying.

Being involved in an early intervention program has dramatically changed the way I feel about my child's handicap. Alana will one day hopefully be mostly independent, as I am quite certain that she will not be completely happy if she cannot achieve this goal. My expectations for her are extremely high, because if I don't have these goals behind me, I would find excuses for her being slow in certain areas, thus leaving her to stagnate rather than achieve her fullest potential. This might leave me with a lot of disappointments but Alana has, in fact, already exceeded my expectations of what she would achieve by this age.

I have given up going to College but when May-May goes to school I'll start again. It's been worth it to dedicate my time to May-May because I feel she benefits so much from all the teaching.

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I would advise parents to start a program as soon as possible, to give their child the best chance possible, and not to dwell on 'if only things were different'. I try to involve my older child in the program rather than telling her to go away because I have to work with John.

I find that being involved in the program has helped me mentally because it's made me feel like I could get in there and do something

constructive to help her, and I think that's helped our relationship to each other, Kelly and I, because I am helping her and not just sitting back watching. So, yes, it definitely makes a difference, being involved.

I definitely advise people to try — you don't get anything by not trying, whereas it makes a lot of difference to the child even with a little bit of help. It makes them more independent, which is what you want in the end.

CHAPTER 3

The Small Steps Program

The *Small Steps* program is addressed, first and foremost, to parents — parents who, by necessity or choice, plan to teach their disabled children by themselves, within their own homes.

It is inspired by the belief that parents are the most important teachers of their children and by years of experience of just how effectively parents can teach. This is not to say that the progress a child makes directly reflects the skill of his parents; a child's *potential to learn* plays a part in determining progress, and so does the quality of the advice that parents are given. But at Macquarie we have seen, over and over again, that when parents are determined that their child will learn a particular skill, learn it he will. Our role as teachers has been to help parents to identify the steps by which their child can progress towards a particular goal, and to suggest ways in which each step can be taught.

Let's look closely at the concept of 'small steps'. All children learn new skills one step at a time. No child wakes up one morning suddenly able to walk or feed himself or draw a picture of 'Mummy'. Children learn these skills little by little, with each new achievement preparing the way for another. Sometimes children learn so quickly that we barely notice the steps they take along the way, but these steps are there and they are much the same for all children.

When a child has a disability that makes learning harder, he may need more little in-between steps in order to reach the same goals that his non-handicapped brothers and sisters seem to reach in a few large bounds. It will take him longer to get there, but he can get there, as long as he is shown the very step he needs to take, just when he is ready to take it. That is what we aim to do when we teach intellectually disabled children and that is why we call this program *Small Steps*.

Material in the *Small Steps* program differs from material previously published for the Macquarie Program in that it:

- Offers more basic information about how to assess a child, develop a program, and teach, so that it can be used by those with no prior teaching experience
- Offers more detail about specific items to be taught.

THE CONTENTS OF SMALL STEPS

The *Small Steps* program is divided into two major parts. Books 1, 2 and 3 contain a discussion of some of the major issues and methods of the Macquarie approach to early intervention. Books 4, 5, 6, 7 and 8 present the curriculum, four books that each cover a different area of development and one book with the Developmental Skills Inventory — checklists used to assess the child.

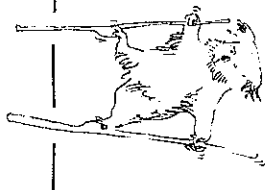
Book 1: Introduction to Small Steps

This book, which you're reading now, tells you the background of the Macquarie Program and how to use *Small Steps*.

Book 2: Your Child's Program

This book explains how to plan a program that's right for the individual child and how to carry out this program. There are six chapters:

- Chapter 1: How to assess your child, to find out what he can do now and what he needs to learn next
- Chapter 2: How to set objectives for your child; how to choose what you will teach
- Chapter 3: How to teach
- Chapter 4: When and why to make changes in your child's program
- Chapter 5: The importance of play
- Chapter 6: Behaviour problems and how to avoid them



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Book 3: Communication Skills

The skill of communicating with others is crucial to every child. This book contains the following chapters:

- Chapter 1: Language learning
- Chapter 2: Teaching the preverbal child
- Chapter 3: Teaching the verbal child

Book 4: Gross Motor Skills

Gross Motor skills use the large muscles of the body. These enable a child to sit, crawl, walk, climb, catch a ball, ride a bike and so on.

Book 5: Fine Motor Skills

Fine Motor skills use the small muscles of the hand and eye. These enable a child to grasp a rattle, turn the page of a book, draw a picture, do a jigsaw puzzle and so on. Also included in this area are the ways in which a child uses his skills of hand and eye to solve problems, match and sort things, and learn about such concepts as colour, shape and size.

Book 6: Receptive Language Skills

Receptive Language skills involve the understanding of the language of others. These enable a child to attend to what others are saying, recognise words and phrases, follow directions and most importantly, use language himself.

Book 7: Personal and Social Skills

Personal and Social skills involve the ability to relate to others and to achieve independence in self-care. These include play skills, the ability to fit in with others, and personal skills such as eating, toileting and dressing.

Book 8: Developmental Skills Inventory

The Developmental Skills Inventory, or D.S.I., is what brings the individual parts and books of *Small Steps* all together. It is a series of checklists used for assessing the child and as a guide for setting objectives.

HOW TO USE SMALL STEPS

The first and simplest answer to the question 'How do I use *Small Steps*?' is this: Use it in the way that suits you best!

You can use it quite informally, if you choose, as a source of ideas. Or you can use it in a more

systematic way — as a do-it-yourself guide to early intervention.

If you wish to do the latter, we suggest that you proceed as follows:

1. Read the first few chapters of Book 2. These will tell you how to assess, teach and set objectives.
 2. Read Book 3. This will tell you how to make the most of your child's communication skills.
 3. Assess your child's communication skills, as explained in Book 3.
 4. To assess your child's other skill areas, look at the *Developmental Skills Inventory* (Book 8) and decide which skills should be assessed. Look up each item in Book 4 (Gross Motor), 5 (Fine Motor), 6 (Receptive Language) or 7 (Personal and Social), so that you know exactly how each item should be assessed.
 5. Assess your child, using the D.S.I.
 6. Set objectives for your child in all skill areas, including communication.
 7. Start teaching!
 8. While you are teaching, read the remaining chapters of Book 2. These will tell you about record-keeping, play and how the child remembers and extends new skills.
 9. As your child acquires new skills, use the D.S.I. or communication checklists to choose objectives.
- Of course, you can vary these steps to suit your needs. Perhaps you would like to start by assessing just one skill area, and beginning to teach in that area, before going on to plan a comprehensive program.

AN IMPORTANT QUESTION

There seems to be so much to read in this kit. Do I really have to read it all?

No. Not all at once anyway! The bulk of *Small Steps* is in Books 4, 5, 6 and 7, and these are designed as reference books. You will look up sections or individual items as you need them — as you do with an encyclopaedia.

We have attempted to give you all the information you need to carry out an early intervention program with your child to a professional standard. No attempt has been made to simplify the material; if we did that, we could not assure you that it would work. But there is no need to try to absorb all this information right from the beginning. Teachers working at Macquarie undertake a long on-the-job training period, and you could see your beginnings in the same way.

THE SEQUENCES

In Books 4, 5, 6 and 7, you will find information about how to assess and teach each item in the *Developmental Skills Inventory*, or D.S.I. (Book 8). Here we explain how to find and use this information.

The D.S.I. consists of four checklists, used for assessing the child and as a guide for setting objectives. These checklists cover four areas of development:

- Gross Motor
- Fine Motor
- Receptive Language
- Personal and Social.

The fifth area of development, Expressive Language, or Communication, is covered in Book 3.

Within each area of development the skills are divided into subgroups of related skills. These subgroups are called Sequences. They are designed to help you see the relationships between different skills and to make setting objectives easier. You will be able to identify your child's stronger and weaker areas within each major area of development. With this information, you can ensure that your program for your child builds on his strengths, helps him to catch up in weaker areas and provides him with balance, variety and interest.

Some skills could belong just as happily in one Sequence as in another. We have placed each skill where we think it belongs best, but if you disagree, well and good — you are using *Small Steps* flexibly and creatively!

Here are the Sequences you will find in *Small Steps* together with the code letters by which they are identified.

- **Gross Motor**
 - Prewalking (G.M.A)
 - Balancing, Walking, Running (G.M.B)
 - Stairs and Climbing (G.M.C)
 - Ball Skills (G.M.D)
 - Jumping (G.M.E)
 - Trike Riding (G.M.F)

Fine Motor

- Looking (F.M.A)
- Grasping (F.M.B)
- Object Permanence (F.M.C)
- Putting (F.M.D)
- Manipulative Skills (F.M.E)
- Drawing (F.M.F)

- Book Skills (F.M.G)
- Problem Solving and Puzzles (F.M.H)
- Matching and Sorting: Objects and Pictures (F.M.I)
- Matching, Sorting and Selecting: Precacemics (F.M.J)

Receptive Language

- Listening and Attending (R.L.A)
- Responding to Gestures and Simple Directions (R.L.B)
- Choosing Between Alternatives: Objects and Pictures (R.L.C)
- Responding to Directions Involving Action Words (R.L.D)
- Responding to Directions Involving Attribute Words (R.L.E)
- Responding to Directions Involving Location Words (R.L.F)
- Responding to Grammatical Features (R.L.G)
- **Personal and Social**
 - Socialisation and Play (P.S.A)
 - Eating and Drinking (P.S.B)
 - Dressing (P.S.C)
 - Toileting (P.S.D)
 - Washing and Grooming (P.S.E)

Using the Sequences

Some of these Sequences contain just a few skills; some contain many. Some can be begun with the tiny baby, while others begin to be relevant once the child is older.

Depending on the age and level of development of your child, and your own resources, you might be working on just one or two Sequences from each area of development at a time, or you may be working on several Sequences from each area — either all at once or alternately. In other words, you draw from them to suit your child and the time you have available for teaching.

Don't attempt to read through all the material in the Sequences at once! Use the Sequences as a reference work, looking up each item, or group of items, as you need it.

What will the Sequences tell you? First we make some general comments at the beginning of each Sequence. If you are going to assess or teach an item from a particular Sequence for the first time, it's a good idea to read these general notes first. They will tell you why this group of skills is important, and may provide information about teaching techniques, or equipment, that is relevant to all the items within the group.

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Following these general notes, you will find a list of all the skills within the Sequence. This list will help you to see how the particular item that interests you fits into the Sequence as a whole.

Each item is then discussed in turn, under its *code of letters and number*. Each code has three parts, like this:

R.L.B.21

The first two letters tell you the area of development of that particular item — in this case, Receptive Language (R.L.). The next letter tells you the Sequence to which the item belongs — in this case, Choosing Between Alternatives: Objects and Pictures (Receptive Language, Sequence B). The number corresponds to the number of that item in the D.S.I. Checklist. Thus R.L.B.21 refers to the skill 'Gives an object to the speaker when asked' — item 21 on the Receptive Language Checklist, belonging to Sequence B.

You will find these codes helpful when you wish to cross-reference between items; otherwise you don't need to worry about them very much!

The discussion of each item includes all or some of the following information:

- Why the skill is important.
- Where it fits in with other skills.
- *How to Assess* the skill (including materials needed, method of assessment and the standard at which the skill should be performed).
- *How to Teach* the skill — with emphasis on specific techniques. This information is designed to supplement more general discussion of teaching in Book 2, Chapter 3.
- *Positioning, Carrying and Playing*. You will find this heading under many early Gross Motor items. It tells you how to encourage motor development in your everyday handling of your child.
- *Playtime and Round-the-house Activities* which can

help your child to learn the skill. You may find that your child can learn many skills using these informal approaches alone.

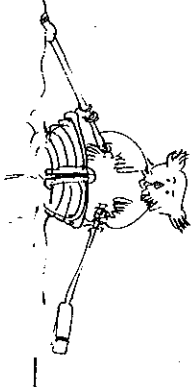
- *Remembering and Extending*. This information helps you to make sure that your child makes use of, and builds on, his new-found skill.

We do not give all this information for every task. For many tasks, there is no distinction between teaching and helping your child to practise in play. For many others, remembering and extending will happen naturally if you continue with the Sequence, so there is no need for special notes on these points. You will also find that some Sequences are presented in different ways from others. In some Personal and Social Sequences, for instance, we discuss how to assess each item, one by one, and then go on to discuss teaching methods for the entire group of skills, as a single continuum. For each Sequence, we have chosen the method of presentation that allows us to get across the most important information in the clearest way. *If in doubt as to how to use a particular Sequence, look at the general introductory notes at its beginning.*

Once again, we stress that the material you will find in the Sequences is intended as a resource to be dipped into when needed — a reference work, or source of ideas, to help you as you teach your child. The notes on how to assess each item should be headed if you wish your assessment to reflect the same standards used at Macquarie. Beyond this proviso, we invite you to use the information you will find here as a starting point, a foil for your own ideas, a resource to help you, rather than to restrict you. Although it is hard to avoid a 'do this, do that' tone, we acknowledge that you are the one who knows your child, and who can gauge whether something is working or not, and so you are the best one to evaluate our suggestions.

CHAPTER 4

Glossary



Here we explain some of the terms used in *Small Steps* — terms which may be unfamiliar to you or used in an unfamiliar way.

Areas of development. These are the five major areas in which children make progress as they develop or grow. They are Fine Motor skills, Communication, Receptive Language, Personal and Social skills, and Gross Motor skills. You will find these terms explained below.

Assessment. In general usage this means 'testing'. In *Small Steps* we use it to refer to the process of finding out exactly what a child can do, through planned observation of his performance of particular activities. Assessment is used to tell us what the child is ready to learn next.

Chronological age. A child's actual age, that is, the years and months that have passed since his birthdate.

Communication. The ability to make wants, needs and feelings known to others, through the use of gestures, sounds, words and sentences, and also to respond to the communications of others.

Concept; conceptual. A concept is an idea. Conceptual skills are those which require the formation of an idea, or acting on the basis of an idea.

Developmental age. The level of development that a child has reached. This will not necessarily be the same as his chronological age. The developmental age is determined by assessing the child on a specially designed test, and comparing what he can do with the age at which the average child attains those skills.

Developmental milestone. A skill which the majority of children attain at a particular age. It is widely used to indicate that a child has reached a particular level of development.

Early intervention. The process of helping young handicapped children, or children at risk of delay, to make the most of their potential, by teaching the right skills at the right time.

Expressive language. See *Communication*.

Fine Motor skills. Fine Motor is the area of development concerned with the small muscles of the body, usually those of the hand and eye. Fine Motor skills include reaching and grasping, putting, drawing, turning pages and so on. This area of development also includes conceptual skills such as recognising that an object still exists when it is out of sight (object permanence), problem solving, the ability to match and sort, and preacademic skills.

Goals. These are long-term aims. They differ from objectives, which are short-term aims.

Gross Motor skills. Gross Motor is the area of development concerned with the large muscles of the body. Gross Motor skills include all the skills which contribute to head control, sitting, crawling, standing, walking, balancing, climbing and so on.

Hand-eye co-ordination. The ability to bring the hand to, and manipulate, objects that are seen.

I.Q. This stands for 'Intelligence Quotient'. A child's I.Q. is ascertained by determining his developmental age on the basis of specially designed tests, and describing this as a proportion of his chronological age. The average I.Q. is 100. A score of more than 100 means that the child's developmental age is greater than his chronological age. A score of less than 100 means that the child's developmental age is less than his chronological age. You will find a brief mention of I.Q. in Book 2, Chapter 1.

Milestone. See *Developmental milestone*.

Non-verbal. This means 'not speaking' or 'not spoken'.

Object permanence. The concept that objects and people continue to exist, even when they are out of sight.

Objectives. These are our short-term goals for the child. They describe the skills he is learning

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at any given time. Objectives are worded so that they show what the child will be doing when he has mastered a particular skill.

Personal and Social skills. The Personal and Social area of development is concerned with the ability to socialise with others, the ability to play, both alone and in groups, and self-care skills such as eating and drinking, toileting, dressing, washing and grooming.

Preacademic skills. These are skills which lead on to the 'academic' skills taught at school, particularly reading, number work and abstract concepts such as colour, size and shape. Preacademic skills are presented in *Small Steps* as a subgroup of Fine Motor skills.

Preverbal. We use this term to refer to the child who is not yet talking, and to communication skills which use gestures or sounds rather than words. The term preverbal implies that a *verbal* stage will come later, but preverbal skills are also essential for the child who will communicate through signs.

Program. This term is used both to refer to an organisation, or set of materials, that is designed to fulfil certain goals (as in the Macquarrie Program) and to an individual child's set of objectives.

Receptive Language skills. This area of development is concerned with the child's ability to respond to, and understand, the language of others.

Reinforcement. The process of providing a consequence to an action, such that the door will be encouraged to perform that action again.

Rotation. This term is used in the Gross Motor program to describe a twist of the body, such that the shoulder moves towards the opposite hip. Rotation is particularly important for balancing.

Sequence. A sequence is a group of closely related skills, arranged in the order in which they are normally acquired, so that one skill builds on another — like a set of steps. Each of the areas of development in *Small Steps* is divided into sequences. Children will generally be working on two or more sequences from each area of development at any one time.

Verbal. This means 'spoken' in phrases such as 'verbal directions'. The verbal child is a child who can speak, that is, the child who can communicate using words and/or phrases. Verbal skills are communication skills in which words or phrases are used.

CHAPTER 5

Resource List



Listed below are suggested books on play, obtainable from good bookshops:

- Australian Broadcasting Corporation. *Useful Book — Songs and Ideas from Play School* (ABC, Sydney).
- Caston, D. *Easy to Make Toys for Your Handicapped Child* (Human Horizons Series, 1983).
- Einan, D. *Creative Play* (Penguin, 1985).
- Hagston, J. and Morril, J. *Games Babies Play: A Handbook of Games to Play with Infants* (Addison-Wesley, 1981).
- Levis, D. *Australian Guide to Good Toys* (Social Science Press, 1986).
- May, A. *Play and Your Child* (Nelson, 1986).
- Nursing Mothers Association. *Merrily, Merrily: A Book of Songs and Rhymes* (Nursing Mothers' Association of Australia, 357 Burwood Road, Hawthorn, Victoria 3122).
- Perrin, P. *Baby Play: Activities for Discovery and Development During the First Year of Life* (Doubleday, 1987).
- Wallisch, M. *Early Childhood Learning Activities Book* (Shakespeare Head Press, 1983).
- Butler, D. *Babies Need Books* (Pelican, 1980).
- Taylor, B. and Braithwaite, P. (eds) *The Good Book Guide to Children's Books* (Pelican).
- Trulace, J. *The Read Aloud Handbook* (Pelican).

Here are some guides to selecting suitable books for young children:

- Bochner, S., Price, P. and Salamon, L. *Learning to Talk: A Program for Helping Language-delayed Children Acquire Early Communication Skills* (Macquarie University, 1985).
- Carr, J. *Helping Your Handicapped Child: A step-by-step guide to everyday problems* (Penguin, 1980).

- Cunningham, C. *Down's Syndrome: An Introduction for Parents* (Human Horizon Series, 1982).
- Cunningham, C. and Sloper, P. *Helping Your Handicapped Baby* (Human Horizon Series, 1978).
- Dmitriev, V. *Time to Begin: Early Education for Children with Down's Syndrome* (Caring Inc., 1982).
- Jeffrey, D. M., McConkey, R. and Hewson, S. *Let Me Play* (Sovereign Press, 1977).
- Jeffrey, D. M., McConkey, R. and Hewson, S. *Teaching the Handicapped Child* (Human Horizon Series, 1977).
- Kiernan, C., Jordan, R. and Saunders, C. *Starting Off: Establishing Play and Communication in the Handicapped Child* (Human Horizon Series, 1978).
- Lane, D. and Stratford, B. *Current Approaches to Down's Syndrome* (Edelman, Holt, Rinehart and Winston, 1985).
- Gains, S. and Pieterse, M. *T.E.L.L.—Teaching Early Language for Living: A Communication Program* (Macquarie University, 1983).

A more comprehensive list is available from the address given below.

For a complete list of materials produced in the Down's Syndrome Program and the Special Education Centre at Macquarie University, and for information about ordering, please write to:

The Secretary
Macquarie University Special Education Centre
Macquarie University
North Ryde, NSW 2109 AUSTRALIA

The *Small Steps* Videotape Programs, which have been designed as an optional supplement to this kit, can be ordered through the above address.

CHAPTER 6

The Small Steps Videotape



The *Small Steps* videotape is a supplement to the kit and is entirely optional. It was prepared by Robin Treloar and Moira Pieterse, and produced by Geoff Barley in 1985. It is available from the Macquarie University Special Education Centre, North Ryde, NSW 2109, telephone (02) 803-8691.

Part 1: Introduction, 25 minutes

Parents are the most important teachers of young children. Parents can learn ways to help their disabled children at home, using the program developed at Macquarie University. This first session discusses the importance of parent involvement with the disabled child and the value of early intervention. It illustrates the Macquarie Program, on which *Small Steps* is based.

Part 2: Children Learn — Parents Teach, 22 minutes

This part outlines the range of activities covered in the program (Gross Motor, Fine Motor, Language Communication, Personal and Social, and Play). Parents express their thoughts and feelings and describe their experiences using the program with their children, the effect on the family and the benefits for the child.

Part 3: The Sequences of Development, 22 minutes

Normal childhood development can be viewed as a set of sequences of learning. When these sequences are broken down into small steps they are more easily mastered. Physiotherapist Diana Usher first illustrates the small steps in a Gross Motor sequence, from early head control, through sitting and crawling, to standing and walking. Diana then goes on to explain the development of reaching and grasping.

Part 4: Assessment — Planned Observation, 18 minutes

Using the sequences of normal development, the child's abilities are observed and her strengths and weaknesses identified. Suggestions are given on how to plan your observations to obtain a clear picture of your child's needs.

Part 5: Finding the Right Step, 12 minutes
This part deals with deciding what to teach. Now that you know what your child can do, you must set some objectives. Develop a plan which is just right for your child.

Part 6: How to Teach, Part 1, 17 minutes

This part illustrates the basic steps of teaching: getting your child's attention; giving the instruction; when and how to demonstrate; prompting the response; giving time to respond; expecting a response.

Part 7: How to Teach, Part 2, 21 minutes

This part describes what to do after the child has tried the activity: making the action rewarding; praise, touch, special treats, etc.; how to manage errors and inattention.

Part 8: Playing, Remembering, Extending, 24 minutes

This part deals with using the new skills in everyday life. It suggests ways to provide opportunities for the child to learn and practise through play, and it helps the parent to understand the importance of play in children's learning.

Part 9: The Match-to-Sample Game, 15 minutes

The match-to-sample game provides a novel and effective way to learn language concepts. The child learns through matching similar objects and pictures, then selecting them, and then naming them, in a well-defined sequence.

Part 10: Language, Part 1, 17 minutes

This part deals with the child's need to communicate. It shows how to encourage language development in babies and young children who are not yet talking.

Part 11: Language, Part 2, 17 minutes

This part illustrates how to simply and effectively extend the first single words and how to teach language through play as part of the child's everyday experiences. It closes with a summing up and a word for parents.