

**Responses to an Early Childhood
Educational Intervention with
Disadvantaged Families: An Exploratory Study**

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DECLARATION

I, Celia Godfrey, declare that the Doctor of Psychology (Clinical) thesis entitled **Responses to an Early Childhood Educational Intervention with Disadvantaged Families: An Exploratory Study** is no more than 40,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

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ABSTRACT

Recent decades have seen an expansion of the early intervention field, particularly with children who are deemed at risk of adverse outcomes due to socio-economic or other disadvantage. Early educational intervention has taken many forms, but those involving both the child and parent together have been shown to have the strongest effects. Additionally, intervention in the early years, enhancing the child's ability to engage with formal schooling, has been found to have a lasting impact not just on the educational trajectory of the individual, but also on the life opportunities which become available. This thesis reports an investigation of the implementation of the Home Instruction for Parents of Preschool Youngsters (HIPPY) program in a regional city in Victoria, Australia. Here, for the first time, this intensive, graduated, two-year program was delivered to a group of Australian-born families experiencing trans-generational poverty and educational disadvantage. The administering agency trained para-professionals from the community who undertook fortnightly home visits to instruct parents in a standard curriculum designed to enhance the learning readiness of their children. Parents, in turn, delivered the program in daily sessions to their children aged four and five. On alternate fortnights this instruction was provided at group meetings for parents. Following previous research, it was expected that HIPPY would result in positive outcomes in terms of cognitive and socio-emotional functioning for children. The experience of parents and staff were also explored as part of the process evaluation. Implementation issues were documented, and their relevance to program outcomes was considered. Analysis of complementary qualitative and quantitative data showed that children made substantial gains in several areas. Interviews with parents revealed that HIPPY was enjoyable and achievable, and contributed to children's increased confidence, early learning, and familiarity with schoolwork. Formal psychological testing demonstrated clear gains for children in terms of their early school skills and socio-emotional development, although results in the areas of general cognitive development, school readiness, and academic self-esteem were inconclusive. Process evaluation found that HIPPY was relevant and feasible in this population and highlighted several key aspects of program implementation. Findings are discussed in the light of international literature in the early intervention area, and implications for future practice and research are drawn out.

CHAPTER ONE

EARLY CHILDHOOD INTERVENTION WITH DISADVANTAGED FAMILIES: THEORY AND PRACTICE

Awareness is expanding of the potential for early childhood intervention in preventing a range of adverse developmental outcomes. Empirical evidence from large-scale prospective studies of normal populations (for example Goodwin, Fergusson, & Horwood, 2004; Patton, McMorris, Toumbourou, Hemphill, Donath, & Catalano, 2004; Sawyer, Arney, Baghurst, Clark, Graetz, Kosky, Nurcombe, Patton, Prior, Raphael, Rey, Whaites, & Zubrick, 2001) has helped chart influences on emotional, psychological, and physical aspects of health. In addition to such research, many scientific and theoretical advances have contributed to a more complex and multi-faceted understanding of early developmental experience.

One such advance is technology resulting in new brain imaging techniques which now permit more direct observation of the brain's activity at different life stages. Recent brain studies have enhanced understanding of the developing brain and mechanisms which may influence both normal and abnormal development (Shonkoff, 2003). Knowledge about the brain's structure and function appears to support growing empirical evidence that experiences in the early years have lasting effects on the individual's development.

A second advance is the apparently widening perception that traditional societal supports for the growing child, such as extended family, close-knit communities and organised religion are no longer robust influences (Edgar, 2002). Today's children grow up in a world where they "may not have the opportunities and resources that were available to most of their parents a generation ago" (Ramey & Ramey, 1992, p.131). Parents, particularly those who contend with the multiple stressors of poverty, often struggle to manage meeting the needs of their children in the absence of these traditional

supports (McLoyd, 1998). Socio-economic disadvantage in families can place children at high risk of not developing potential strengths. Increasing rates of behavioural problems, learning difficulties, and substance use are some of the ways that these issues can manifest in the lives of young people.

In this context, greater recognition of the importance of developmental trajectories initiated in the preschool years, together with the understanding that the child's brain at this time is geared towards acquisition of skills and knowledge, has underpinned a range of early childhood intervention programs.

This thesis addresses the hypothesis that early childhood experience is important, and that intervention at this time can make a significant difference in the lives of children. Early educational intervention programs for disadvantaged families have the potential to ameliorate, to some extent, the negative effects of poverty on child development. Research in this growing area of concern is important to determine how best to engage these families in early intervention endeavours, and the vital ingredients needed to assist families in building skills that may otherwise remain undeveloped in their children.

The following chapter begins by outlining theoretical propositions concerning child development that are particularly relevant in the preschool years, and relates these to consideration of socio-economic disadvantage. Attention then turns to recent approaches to early childhood intervention involving engagement with formal education, which are designed to counteract or compensate for the deleterious effects of poverty.

1.1 Early child development in a context of socio-economic and other disadvantage

Living in poverty has been associated with many adverse outcomes for families. By definition, the term poverty implies that there is a lack of sufficient resources to meet the family's needs. While poverty is usually defined by cash income, using a government-determined threshold as a marker (McLoyd, 1998), the concept of disadvantage is broader. Including a lack of financial resources, disadvantage can be a feature of the individual or his or her environment, affecting both adults and children. In the scientific

literature, when applied to the young, it typically denotes “a significantly elevated probability that a child will not meet minimal expectations for successful performance” (Ramey & Ramey, 1992 p.132). The concept of disadvantage in relation to children, then, is not just about a limited level of family resources, but also incorporates a prognosis about the impact that this is likely to have on a child’s development.

Bronfenbrenner’s ecological theory of child development provides useful insights into how factors such as poverty may influence early child development, as does Vygotsky’s theory of cognitive development. Following an outline of these two theories, the discussion turns to the specific impact of poverty on child development.

1.1.1 Theoretical perspectives on child development

Bronfenbrenner’s ecological theory of human development serves as a useful general systems theory for understanding the importance of the environment experienced by the developing child, and has played a critical role in the field of early intervention (Halpern, 2000). Rather than seeing the growing child as an isolated individual, Bronfenbrenner (1993) emphasised the dynamic relationships the child has with other people, and various other aspects of the environment. These range from relationships with members of the immediate family to more general social and political forces which shape the world in which the family lives.

Alongside this understanding of the infant as an “active, perceiving, social being” (Halpern, 2000, p.366) came the recognition of new sources of risk to the growing child, such as maternal depression, and barriers to the development of secure attachment relationships. Through understanding of Bronfenbrenner’s theory, the realm of potential influences on development, both positive and negative, became much broader, and the scope for early intervention increased substantially.

Vygotsky’s (1978) theory of cognitive development focuses more specifically upon individual learning and the social context in which cognitive development occurs. The Vygotskian notion of “scaffolding” proposes that the child’s growing awareness of the world

needs to be supported in its development by others with more experience (such as parents, or older siblings), in order to progress from simpler to more complex understanding (Gilley, 2002). Accordingly, learning is best facilitated by cognitive tasks which are progressively more challenging and which are contemplated with the guidance of another, more knowledgeable, person. Vygotsky's "zone of proximal development" describes the interpersonal space in which this scaffolding, and hence learning, can occur (Vygotsky, 1978). An example would be a parent or teacher helping a child learn to read new words in a one-to-one exchange. Vygotsky's theory suggests that without the support and guidance of the more knowledgeable person, the child will struggle with the acquisition of such skills (McMillan, 1992). Such a conceptualisation is paralleled in Bowlby's (1969) attachment theory, which proposes security of attachment to the caregiver as a basis for effective exploration of the infant's world, and hence learning (Dean, 1988; Grady, 2002).

In combination, these theoretical perspectives offer a framework for understanding the importance of the external world in the formation of the child's internal representation of that world. As originally formulated by Piaget (1952; 1977) in his twin notions of assimilation and accommodation, cognitive development cannot be seen as a purely biological process, but is dependent on environmental stimulation (Gilley, 2002). An essential element of both Bronfenbrenner's and Vygotsky's theories is the idea that cognitive development is a complex interactive process between levels of individual experience in which many factors, particularly interpersonal relationships, make critical contributions.

This notion also emerges in a recent review of the early intervention field (Ramey & Ramey, 1998), which asserted that all children have particular supports and stressors, both from within and outside the family, that affect the quality and quantity of behavioural transactions among members. It is these transactions that are considered to constitute the primary matrix for young children's learning (Ramey & Ramey, 1998). Similarly, Bronfenbrenner's ecological theory emphasises that "the most significant factors influencing learning and development occur as a result of interactions among people who matter to each other" (McMillan, 1992, p.34).

1.1.2 Effects of socio-economic disadvantage on child development

Understanding that the environmental context into which the child is born plays a crucial role in shaping his or her development, broader social and political influences on the family can also be considered. For example, the family's capacity to provide for the developing child's needs strongly influences the possibilities open to that individual. A recent review of the early childhood intervention field observed that:

The larger child development research community continues to view poverty as a complicating variable in its research, not something that has a profound and pervasive influence on, and is a fundamental organizer of, children's and families' lives. (Halpern, 2000, p.361).

Recent research has shown that poverty and other disadvantage have a major impact on the lives of children in many ways, both directly and indirectly. A large body of public health research has revealed that almost all indices of health, whether physical, emotional, or psychological, are negatively associated with socio-economic disadvantage (Marmot, 2004). For example, cognitive development has been shown to be negatively associated with such diverse aspects of poverty as greater exposure to environmental toxins such as lead (Baghurst, McMichael, Wigg, Vimpani, Robertson, Roberts, & Tong, 1992), low level of parental education (Ramey & Ramey, 1992), early cessation of breastfeeding (Oddy, Kendall, Blair, de Klerk, Stanley, Landau, Silburn, & Zubrick, 2003), and physical health issues relating to perinatal complications which are more prevalent in disadvantaged groups with inadequate health care (McLoyd, 1998). Recent Australian research has found that children in the most socio-economically disadvantaged group had more than five times the risk of an intellectual disability compared with those from more advantaged backgrounds (Leonard, Petterson, de Klerk, Zubrick, Glasson, Sanders, & Bower, 2005).

An appreciation of the social context in which children grow up means taking into account the role of the family, community, and broader society in "shaping, constraining and redirecting individuals' actions" (Silburn, 2003, p.2). The task of parenting in a low socio-economic environment is frequently compromised by the added stressors of high

rates of unemployment, poor or unstable housing, unsafe neighbourhoods, inadequate health care, and often substance abuse and violence (Ramey & Ramey, 1992). In the United States, more than half of the young children identified as living in poverty live in families in which the parents have not completed high school, and approximately half live with a mother who began child-bearing in her teenage years (Halpern, 2000). According to a recent Australian review, in comparison to children from more affluent backgrounds, children living in poverty have been shown to:

- *have lower levels of literacy, numeracy and comprehension;*
- *be more likely to leave school early;*
- *have lower rates of participation in tertiary education;*
- *exhibit higher levels of problematic school behaviour (such as truancy);*
- *be less likely to study specialised maths and science subjects;*
- *be more likely to have difficulties with subjects and display negative attitudes to school; and*
- *have less successful school to labour market transitions. (Considine & Zappala, 2002, p.130).*

Thus, although living in poverty does not always mean that children will be educationally disadvantaged, it is associated with important factors which can limit children's ability to engage positively with the school system in particular, and with formal education more generally (van Tuijl & Leseman, 2004). Conversely, home environments that provide cognitively stimulating experiences have been positively linked to children's IQ scores, which, in turn, are positively linked to success at school (McLoyd, 1998).

It is clear, however, that despite their own often negative and limited experience of schooling, many parents from disadvantaged backgrounds view education as a way to make a difference to a child's chances in life, helping that child to get off to a better start (Burgon, Dominick, Duncan, Hodges, Roberts, & Weenik, 1997; van Tuijl & Leseman, 2004). This has especially been a feature of immigrant families, who often possess strong motivation towards creating conditions for a better life for their children (Considine & Zappala, 2002).

1.2 Educational intervention in the pre-school years

Implicit in the idea of early childhood intervention is the concept of need. A core assumption is that some families, for a multitude of reasons, are missing essential ingredients (Ramey & Ramey, 1992) in their child-rearing efforts, such as skills, knowledge, or motivation. In the past these resources were often gained from, or enhanced by, traditional supports such as the extended family.

In the United States, where most of the early intervention work in this area has been reported, it has been estimated that up to one third of children are “not ready to learn” on entering school (Ramey & Ramey, 1992, p.131). According to Ramey’s review of the literature on early intervention, the child’s capacity to positively engage with school from the outset is crucial, not just in terms of academic achievement, but also in terms of a range of other outcomes:

“Lack of school readiness bodes ill for future school performance. Poor school readiness predicts increased likelihood of low levels of academic achievement and high levels of retention in grade, special-education placement, and ultimately school dropout. These same children are at elevated risk for teen pregnancy, juvenile delinquency, unemployment, social dependency, and poor parenting practices.” (Ramey & Ramey, 1998, p.111)

The scope for preventive intervention in the years before the child enters school is therefore of potentially great significance. The following brief overview of the predominant approaches to intervention with disadvantaged families raises some of the central challenges in this work.

1.2.1 Recent research into early childhood educational intervention

Early educational intervention programs typically target children who are considered to be at risk for a variety of adverse outcomes including developmental delay, mental retardation, poor school achievement, or school drop-out. This includes “children from economically impoverished families, children with biological risk factors, children with combined psychosocial and biological risks, and children with developmental disabilities diagnosed in infancy” (Ramey & Ramey, 1998, p.115). In the United States it has been

estimated that over 300,000 young people aged under 21 suffer from mental retardation, defined as an IQ score below 70, which might have been prevented through early and continuing intervention (Ramey & Ramey, 1998). Recent Western Australian research using the comprehensive Maternal Child Health Research Database found the prevalence of childhood intellectual disability to be 14.3 per 1,000 (Leonard, Petterson, Bower, & Sanders, 2003).

Although a considerable amount of research has accumulated with regard to outcomes of early intervention programs generally, it remains difficult to assert many firm conclusions across the field, due to several factors. These include the diversity of models used (e.g., whether home-based or centre-based, parent- or child-focused), inconsistencies in the measures used to assess change, uncertainty about the extent of program fidelity (Bradley & Gilkey, 2002), the limitations of short-term follow-up research, ethical and practical difficulties with randomisation, and serious problems with attrition of participants from the programs. Additionally, interventions which aim to effectively assist disadvantaged families must be able to accommodate children with diverse needs, with a wide range of abilities, and from many different backgrounds (Halpern, 2000). For example, in some programs the inclusion of children with developmental delays is mandatory, as in the Head Start program in the United States, where children with disabilities must comprise at least ten percent of any intake (Ramey & Ramey, 1998).

Early intervention with an educational focus occurs mainly in two settings. The first takes place outside the home, such as in a group daycare setting, where the intervention is offered directly to the child, with or without parental involvement. These programs constitute a kind of modified educational day care, but with lower child to staff ratios, close supervision of children, and involvement of experts in their design to enhance the cognitive and social skills of disadvantaged children (Grady, 2002).

The second common form of early educational intervention is the home-based program, where a trained person makes regularly scheduled home visits to work with the parent and / or child (Bronfenbrenner, 1990). A prominent example of a home-visiting program currently conducted in Australia is the Parents as Teachers program, which

operates in the first three years of the child's life, consisting of parent group meetings and home visits by professionally trained staff who assist parents to teach their children age-appropriate skills (Gilley, 2002).

Intervention with preschool children alone, without parent involvement, and outside the home, has been found to have only limited or short-term effects, whereas interventions that are designed to influence the broader home environment of the child have been found to make a greater difference (Ramey & Ramey, 1998). Particularly in immigrant groups, who often come from more collectivist cultures, a more wholistic approach to intervention, which capitalises on the value placed on the family, has intuitive appeal (Bekman, 1990).

Recognition of the importance of the child's home and family environment, as predicted by Bronfenbrenner's (1993) ecological theory, has led to the development of "intergenerational" program frameworks. Such an approach typically integrates work directly with children with concurrent support and education for mothers. The Head Start program is perhaps the best known example of this model (Halpern, 2000). This form of intervention can occur either within or outside the home.

In contrast to centre-based programs, which often have low and irregular rates of attendance, the home-visiting strategy has several benefits when targeting disadvantaged families. These include the way that "the pace of learning can be adjusted to the mother's ability, specific problems can be identified and dealt with, and mothers can be supported and encouraged to continue participating in the program" (Eldering & Vedder, 1996, p.232).

Additionally, family-based programs help avoid the creation of two different and possibly incompatible learning environments for the young child, and they enhance the possibility of generalisation of gains from enrichment efforts to other family members, such as parents and siblings (Bekman, 1990).

1.2.2 An opportunity for research in Australia

The introduction of a particular home-based early intervention in Australia in 1998, namely the Home Instruction for Parents of Preschool Youngsters (HIPPY) Program, has provided an opportunity for exploration of the effects of such a program in a range of settings (Dean, Leung, Gilley, & Grady, 2004). The nature of this intervention, and the research hitherto conducted in relation to its implementation, is the subject of the next chapter.

CHAPTER TWO

THE HOME INSTRUCTION FOR PARENTS OF PRESCHOOL YOUNGSTERS (HIPPY) PROGRAM

The Home Instruction for Parents of Preschool Youngsters (HIPPY) program, known since 2005 in Australia as “The Home Interaction Program for Parents and Youngsters”, was developed in Israel in the 1960s. Its purpose is to prepare children from educationally disadvantaged families for school by enhancing the home learning environment and encouraging parents to play an active role in their children’s education. As outlined by Avima Lombard, HIPPY’s creator at the Hebrew University of Jerusalem’s School of Education:

HIPPY is a home-based enrichment program in which a parent, usually the mother, works with a preschool-aged child on a particular set of educational activities. These materials are provided in weekly packets by a paraprofessional aide, herself a mother of a preschool child and a member of the same community. (Lombard, 1994, p.11)

The program has been implemented subsequently in some eleven countries across the world. It is franchised to an organisation in each country by HIPPY International, based within the Hebrew University of Jerusalem. In several countries national organisations have been established to franchise and monitor the implementation of HIPPY, and to promote the founding of new sites.

In a number of countries, HIPPY consists of a three-year program, commencing with children aged three, and completed before they enter school. In others, including Australia, children are enrolled in HIPPY for two years, beginning at age four. In Australia the program commences in the year before school, with the second year complementing the first year at school (Grade Prep).

This chapter outlines the basic or standard HIPPY model, preceded by its rationale and aims in terms of learning readiness. Attention then turns to the HIPPY program in practice internationally, including an overview of published research on its effectiveness.

2.1 Aims and design of the HIPPY program

The issue of school readiness is one on which a great deal of research in education has been conducted, and it includes consideration of how children learn, both narrowly, in terms of cognitive development, and broadly in terms of general psychological and social functioning. In the United States, the National Education Goals addressed this issue in 1995, and the panel of experts informing this work defined four domains of school readiness:

(i) what children know and can do, (ii) risk and protective factors that make up the overall condition of the child and the family, (iii) service provision and access, and (iv) systems capacity (cited in Westheimer, 1997, p.245).

According to Westheimer (1997), consideration of these four elements informs a comprehensive and wholistic approach to school readiness. While these elements do imply broad system-level changes, an approach which takes account of both the individual child's needs and the context (both familial and social) in which the child lives has the greatest potential to make a lasting impact. Such understanding informed the original development of HIPPY.

Part of the HIPPY philosophy is the notion that early success in education, and positive parental attitudes towards learning, influence the ability of the child to engage successfully with school (Lombard, 1994) . This, in turn, can strongly influence the life trajectory of the child and the opportunities that are available to him or her (Kagitcibasi, 1996). In families where the parents have had limited or negative experiences with schooling, the home environment is often ill-equipped to support a child's formal learning endeavours, and parents often do not realise their own potential to contribute to their child's education.

2.1.1 Structure of the program

A home-based approach which involves parents is an economically viable way of running HIPPY in communities which are under-resourced, but there have been additional reasons given for this approach. HIPPY may also empower parents to develop greater confidence and interest in supporting their child's (and often their own) education (Kagitcibasi, 1996). As the program was originally designed for disadvantaged immigrant families in Israel (Lombard, 1994), it also contains elements, such as the home tutor concept, which are thought to make it more acceptable and appropriate to ethnic minority groups. In HIPPY, Home Tutors are recruited from the local community by the Co-ordinator at the beginning of the program. They are typically women who have children enrolled in the program themselves, and have much in common with other HIPPY families (Westheimer, 1997).

HIPPY is a relatively intensive structured intervention with a standard curriculum and mode of delivery (HIPPY Australia, 1999; Lombard, 1990). The weekly schedule of HIPPY educational activities runs parallel to the school calendar and includes breaks for the school holidays. Each fortnight, parents receive the HIPPY materials for the week ahead during an instructional home visit by a paraprofessional Home Tutor. At this visit they discuss and rehearse, or role-play, the activities in preparation for the parent instructing the child.

On alternate weeks, a centre-based parent group meeting is attended, in which the HIPPY materials for that week are learned from the Home Tutors, and there is a chance to exchange information and advice with other parents. The group meetings typically also include an enrichment component, addressing particular parenting issues such as healthy eating, road safety, or principles of child development (HIPPY Australia, 1999; Lombard, 1990). Parents typically pay \$1.00 per week for their participation, to cover the cost of materials.

2.1.2 Program content and curriculum

The conceptual framework underlying the HIPPY curriculum focuses on a staged approach to language development, problem-solving, logical thinking, and perceptual skills. Examples of curriculum activities are presented in Appendix 1. According to HIPPY USA:

“Learning and play mingle throughout HIPPY’s curriculum as parents expose their children to early literacy skills such as:

- *Phonological and phonemic awareness*
- *Letter recognition*
- *Book knowledge*
- *Early writing experiences.*

In addition, the curriculum fosters social / emotional and physical (fine and gross motor skills) development. HIPPY introduces skills and concepts in a progressive manner, first using the physical body, then concrete objects and finally representation of objects in pictures, followed by many opportunities for practice and learning.” (From “The HIPPY Curriculum” on HIPPY USA’s website <http://www.hippyusa.org/Model/curriculum.html> accessed 27/04/2006, p.2)

Rather than simply bringing an aide into the home to tutor the child directly, HIPPY lessons are presented to the child by the parent. This not only capitalises on the parent-child relationship, but also provides a concrete opportunity for mothers to experience a sense of their own importance and potential in helping their children to learn (Westheimer, 1997). Bronfenbrenner (1974) identified three critical processes that arise in the context of educational intervention with a mother and child:

In the early years of life, the key element was the involvement of parent and child in verbal interaction around a cognitively challenging task. A second critical feature was the fact that the mother not only trained the child but the child also trained the mother. A third factor was the existence of a mutual and enduring emotional attachment between the child and adult. It is by capitalizing on all these elements, by taking as its focus neither the child nor the parent but the parent-child system, that parent intervention apparently achieves its effectiveness and staying power. (p.17)

HIPPY clearly incorporates these three components in its design.

Of particular importance in the original curriculum design was that the work should be both appealing to the children and achievable by mothers, to ensure their continuing

involvement in HIPPY. Instructions to mothers are therefore very clear and concrete, taking little for granted. For example, Lombard (1994) described the development of the book work:

Our basic orientation in planning both the scope and the specifics of the activities concerning books was the knowledge that the mothers in our program do not normally read stories, buy books, or encourage their young children to use them. Therefore, since we assumed no prior knowledge of or skill in the use of books with young children, everything included in the administration of the materials would have to be clearly stated, including such directions as: "Sit next to your child," "Open the book to page..." (p.21)

It was with this in mind that role-playing was chosen as the mode for Home Tutors to instruct parents as its focus is on concrete action, and it is interactive and experiential. Role-play was seen to create a non-threatening atmosphere in which any difficulties with understanding the materials could be clarified in an informal and accessible way (Lombard, 1994).

2.2 Historical overview of HIPPY practice and evaluation research

While there has been wide dissemination of HIPPY as a means of enhancing learning in disadvantaged communities, there has been relatively little published evaluation research to date. An overview of research findings relating to the outcomes and process of the implementation of HIPPY internationally is provided below.

2.2.1 Original HIPPY practice and research in Israel

First implemented in Israel, HIPPY has been operating there for over thirty years. Three evaluations of the early work on HIPPY have been published (Lombard, 1994). All three of these studies, one in Tel Aviv, and two in Jerusalem, used a combination of direct testing of children's abilities and teacher assessment to determine whether HIPPY children outperformed non-HIPPY controls post-program.

The first of these studies, conducted between 1969 and 1972 in Tel Aviv, compared results from three groups, namely children who experienced the standard

home-visiting HIPPY model, children who were instructed in HIPPY curriculum by teachers at school, and a non-HIPPY control group (Lombard, 1994). Testing at Grade Two follow-up revealed that the standard HIPPY group performed significantly better than the other two groups on measures of mental maturity, reading and mathematics. At Grade Five follow-up they were also more likely to be doing well at school, and less likely to be assigned to remedial classes than the other children.

Two Jerusalem studies then compared a HIPPY group with a control group (Lombard, 1994). The first of these, in the early to mid-1970s, found that HIPPY children had significantly better visual perception and grasp of basic concepts after their kindergarten year, and reading ability in Grade Two. Later follow-up at Grades Three and Four, however, did not reveal significant differences between the two groups. The second Jerusalem study, in the late 1970s, found no differences between HIPPY children and controls at Grade One, and only one significant difference, namely that they were better at Mathematics, in Grade Two. Nevertheless, teachers reported that they perceived HIPPY to have a positive effect on children's learning in terms of work habits, motivation and language.

2.2.2 Long-term follow-up of HIPPY families in Turkey

The first widely published report of HIPPY evaluation was of work in Turkey. Bekman (1990) reported on the effects of an enhanced program which included a substantial mother training component. This study found significant program effects in terms of children's cognitive development and school achievement. Additionally, children in the intervention group displayed less aggressive and more autonomous behaviour, and enhanced emotional functioning more generally, in comparison with children in the non-intervention group. While these gains were encouraging, it was difficult to ascertain how much was due specifically to HIPPY, as opposed to the additional mother training component.

A subsequent longitudinal study, the only controlled study with random assignment to date, revealed significantly positive effects of HIPPY seven years post-program. The importance of empowering mothers formed the rationale for the inclusion of a “Mother Enrichment Program” (Kagitcibasi, 1996). As for the Bekman (1990) cohort, this meant that, in addition to the standard HIPPY model, mothers also attended weekly meetings which provided them with extra support and education. Kagitcibasi found the program to have very successful outcomes in terms of children’s academic achievement, even at follow-up when children were aged 13-15 years. Additionally, in-depth interviews with children, mothers, and fathers showed substantial gains in terms of positive family interactions, both immediately and at follow-up. The author claimed that the mothers’ interaction styles with, and general orientation to, their children were conducive to the overall success and well-being of their children. Once again, however, the additional contribution of the mother enrichment program to these outcomes was difficult to establish.

2.2.3 HIPPY research in the severe political context of South Africa

Several HIPPY programs have noted major difficulties with attrition of participants, as disadvantaged parents struggle to maintain their commitment in the context of multiple life stressors. One example was a South African program in which more than 78 percent of the indigenous African sample and 20 percent of the Coloured group did not manage to complete the program (Adams, Skuy & Fridjohn, 1992). Nevertheless, post-program cognitive testing of the small number of children who remained in each group showed positive results in several domains addressed by HIPPY. For example, both Coloured and African HIPPY children did better than matched controls on receptive vocabulary, with the Coloured group showing a significant difference.

Overall, results were very positive in the Coloured community which was seen as “relatively well-organised and socioeconomically adequate” (Adams et al., 1992, p.13). The authors suggested that this relative stability appeared to help families remain engaged with HIPPY. Within the indigenous African community the situation was very different,

although benefits were reported for the families who managed to continue. This South African study took place in the context of a society oppressed by apartheid, and the researchers' conclusion was that in a political context of such extreme poverty and disenfranchisement, a program like HIPPY cannot be expected to be prioritised by parents who are struggling to look after the everyday survival needs of their families.

2.2.4 Cross-cultural studies of HIPPY in the Netherlands

The first published Dutch study of HIPPY consisted of 161 families from Surinamese, Turkish, Moroccan and indigenous Dutch backgrounds (Eldering & Vedder, 1996) and a matched control group. This study reported a forty percent attrition rate, highest in the Dutch group (54%) and lowest amongst the Moroccan families (22%). The program experienced major problems with implementation in terms of Home Tutor contact with the families, and group meeting attendance rates. Only the Moroccan families received a sufficient number of home visits, which seems to have contributed to their ability to sustain their involvement in the program. While the results of formal cognitive testing were inconclusive, mothers reported benefits for their children, and saw themselves as better educators as a result of participation.

In the second, revised Dutch HIPPY program, Turkish and Moroccan families were once again the main target groups, and a new curriculum was introduced (van Tuijl, Leseman, & Rispen, 2001). Despite some difficulties with implementation once again, gains in terms of emergent numeracy and cognitive skills were evident in the Turkish group when compared to controls. The Moroccan group, however, did not show any positive program effects.

Further research on a Turkish subsample of this cohort found program effects on the level of socio-emotional support given to the child by the mother (van Tuijl & Leseman, 2004). This was observed in terms of mothers being more co-operative and child-following, and encouraging and praising the child frequently during program activities.

Although both these Dutch evaluations of HIPPY did include detailed discussion of relevant cultural factors, a real need was revealed for systematic process evaluation, including qualitative data collection and analysis, to enhance understanding of why implementation was such a challenge in the Netherlands.

The comprehensive modifications undertaken in terms of the materials, while maintaining the original HIPPY delivery framework, also meant that this new program (called *Opstap Opnieuw* in Dutch) probably could not truly be considered to be an example of HIPPY. This raises the important issue of program fidelity or integrity and the importance of documenting procedures to demonstrate that the original model is being upheld if the program is to be called “HIPPY”.

2.2.5 Multi-site multi-cultural HIPPY research in New Zealand

Several reports of New Zealand HIPPY research are available, and highlight some of the particular difficulties encountered by communities of Maori and Pacific Islander families. The first published study from New Zealand (Burgon et al., 1997) reported research with a program including predominantly these two cultural groups, with only 10 percent of the sample being of European or other ethnic background. This program had considerable difficulty with implementation issues, such as targeting appropriate families and program attrition (close to 50 percent across six sites). It was argued that both mobility of families and the strong need for community ownership of HIPPY may have contributed to this latter problem. The authors noted that, within the New Zealand cultural context, the fact that HIPPY originated overseas meant that for some Maori groups it may never be acceptable. At the very least, revision of “Americanisms” in the materials, and possibly translation of materials into Maori, were recommended.

Nevertheless, Burgon et al. (1997) reported that 75 percent of parents completing the program felt that HIPPY had helped with aspects of their child’s behaviour such as concentration, confidence, and following instructions. Cognitive testing also found that 75 percent of children showed an improvement in standard scores on receptive vocabulary.

Teacher reports showed a trend for HIPPY children to be less likely to be described as making “slow” progress at school compared to controls.

The second evaluation of HIPPY in New Zealand took place in four Auckland sites and one rural HIPPY program (Barhava-Monteith, Harré, & Field, 1999a; Barhava-Monteith, Harré & Field, 1999b). This study explored dimensions of educational achievement, school readiness and school behaviour in 77 HIPPY children and 704 of their school peers, all six years of age. Generally, HIPPY children showed a trend towards higher scores than non-HIPPY children on most tests used, including a standard school-administered test of language and listening, although differences between the two groups relating to behavioural academic self-esteem were non-significant.

The authors proposed that HIPPY seemed to work on three interdependent levels for these families, namely, through a direct effect on children’s learning and skills, by enhancing the motivation and self-esteem of children in relation to learning, and by increasing the interest and involvement of parents in the child’s learning endeavours (Barhava-Monteith et al., 1999a).

2.2.6 Research on extensive implementation of HIPPY in the United States

In the United States there are more than 100 HIPPY programs, serving over 15,000 families (Westheimer, 1997), and accompanied by various levels of evaluation. Despite this, there remains a relative paucity of published evaluation research, and there is a real need in the early intervention community for this body of unpublished work to become more accessible. The major publications available to date are summarised below.

The first published evaluation of a HIPPY program in the United States reported mixed results (Baker, Piotrkowski & Brooks-Gunn, 1998). Two consecutive intakes of HIPPY at the same site in New York State were compared with controls at baseline, post-program, and then at one-year follow-up. The first cohort of HIPPY children were stronger on almost all measures of cognitive skills and school performance than controls, while the second cohort failed to show any program effects. Neither attrition analyses nor children’s

level of exposure to HIPPY (the number of weekly work packets received by families) provided an explanation for the discrepancy. The authors concluded that more in-depth process research, and longer-term follow-up studies were needed in order to make sense of this apparent lack of replicability of HIPPY outcomes.

Simultaneous with the research in New York, a parallel study was conducted in Arkansas (Baker et al., 1999) with very similar results. Again, one HIPPY intake was found to be successful in terms of outcomes, while a second group did not demonstrate such gains.

These perplexing results were then explored in a qualitative process evaluation concerning parents' level of involvement in HIPPY at these two sites, as well as at a third in Michigan. Detailed investigation of parent involvement in HIPPY was undertaken through interviews with Co-ordinators and paraprofessional Home Tutors, as well as through parent self-report (Baker et al., 1999). Four important factors emerged as potentially contributing to variations in parent involvement. Firstly, at times the level of commitment required was not clearly communicated to parents at the outset of their involvement. Secondly, some parents appeared to enjoy the social and support aspects of the home visits, but did not complete the work with their children in an ongoing way. Thirdly, group meetings generally had low rates of attendance, and Co-ordinators' understanding of their purpose in HIPPY varied. Fourthly, parents who were not on welfare, had higher levels of education, had higher expectations for their children, and reported a greater number of educational materials in the home, were more likely than others to be strongly involved in HIPPY. The revelation of these features highlights the value of process evaluation in understanding the outcomes for children and can usefully inform HIPPY in other settings.

Around the same time, a detailed process evaluation of HIPPY explored issues relating to service delivery and the role of paraprofessionals, using interviews with parents, paraprofessionals and other program staff (Britt, 1998). This study, in a Mid-Western city, found that maintaining a focus purely on the program when the family was in crisis was of major concern to Home Tutors. Home Tutors felt caught between the broader needs of

families, frequently in continuing crisis, and the specific goals of the program. They often struggled to maintain their own emotional boundaries. The additional provision of a family support specialist in the second year of the program was seen to assist with this, resulting in higher retention of families in the program, and in the resolution of non-HIPPY problems such as substance abuse. Britt concluded that adapting the program to include a support worker who took responsibility for working with families on their more general problems enabled the Home Tutors to concentrate on getting the work of HIPPY done in this particularly challenging community.

A statewide post-hoc study of the effects of HIPPY was conducted in Arkansas in the mid-1990s, using standard school records such as suspensions, absenteeism, and teacher reports of children's behaviour. This study found that, in Third and Sixth Grades, children who had completed HIPPY tended to perform better on measures of school achievement and adjustment than children with "other preschool" and "no preschool" experience (Bradley & Gilkey, 2002).

Several other evaluation studies are briefly summarised on the HIPPY USA website at www.hippyusa.org/Research/research_summary.html. On the whole, these studies suggest positive program effects on school readiness and academic achievement, although there are various methodological issues to take into account, including small sample sizes and the absence of matched comparison groups (Bradley & Gilkey, 2002).

2.2.7 Research on HIPPY in diverse population groups in Australia

As noted above, HIPPY has been introduced to Australia in its standard form, but has been delivered over only two years, when the child is aged 4 and 5 years. Apart from this, there are two main ways in which HIPPY in Australia necessarily differs from the program in most other countries. Firstly, in Australia, as in New Zealand, children are enrolled in the program for only two years, with the second year complementing their first year of school. This is because the Australian school system begins at age five, a year earlier than most other countries in which HIPPY has been implemented (Dean et al.,

2004). Secondly, in Australia, most groups of immigrants settle in very diverse communities, such that immigrant cohorts of HIPPY are likely to include families of multiple cultural and language backgrounds.

HIPPY was first implemented in Australia in 1998 (Dean et al., 2004). Since that time it has been introduced at some eight sites, in three States, and with a range of educationally disadvantaged groups. These were initially inner-urban immigrant communities in Melbourne, Victoria, but subsequently have also included an urban community of Indigenous Australians in Sydney, New South Wales, a regional program based in Geelong, Victoria, with non-immigrant, predominantly Anglo-Celtic families experiencing trans-generational disadvantage, and a similar community in rural Tasmania.

Evaluation research varying in focus, depth and complexity, has been carried out in respect of eight deliveries of the program in Australia. Most of these have produced reports. However, reports to date have been in thesis form, where the research has been conducted in a university context. Most evaluation has occurred in the state of Victoria, as part of a staged research program planned and co-ordinated by the School of Psychology at Victoria University, Melbourne. The studies in this staged series are outlined briefly below.

The focus of the first unpublished evaluation of HIPPY in Australia was to systematically document and explore the process of implementing HIPPY in a new context, involving Vietnamese, Laotian Hmong, Thai, and Turkish immigrant families recently settled in inner-city Melbourne (Grady, 2002). Qualitative in-depth interviews with families addressed facilitating factors and difficulties encountered, and found that HIPPY was indeed feasible in this multi-cultural Australian setting. Another finding was the importance to parents of the family relationship dimension of HIPPY. A specially structured interview to tap parents' perceptions showed that, while parent and child were engaged in HIPPY activities together, the child's attachment relationship with the parent was enhanced (Grady, 2002).

The second unpublished research study of HIPPY in Melbourne was both a process and outcome evaluation, and once again involved a diverse range of immigrant

groups, including Vietnamese, Somali, Hmong, Turkish, Ethiopian, Chinese, Chilean, Thai and English-speaking families (Gilley, 2002). This study incorporated a non-HIPPY comparison group and was thus designed to capture program effects, as well as to gain some understanding of how these effects were achieved. Results again showed that HIPPY could be successfully implemented in a multi-cultural Australian context, with the successful adaptation of the program to a number of different languages. Both qualitative and quantitative evaluation indicated that the program enhanced children's readiness for school. In particular, children who participated in HIPPY were found to perform at a higher level than controls on several formal psychological tests of their abilities in the areas of literacy, numeracy and school-related behaviour (Gilley, 2002).

As a result of the favourable experience of implementing HIPPY with inner-urban immigrant communities, the service provider, the Brotherhood of St Laurence, has expanded its program delivery. Meanwhile, a family support provider in the regional centre of Geelong, Glastonbury Child and Family Services, introduced the program with a transgenerationally disadvantaged Australian-born, predominantly Anglo-Celtic community.

Evaluation of the first delivery of HIPPY in Geelong was conducted internally by the service delivery agency, using interviews with parents and staff, and an audit of agency HIPPY records (Duffield, 2002). This unpublished report found that parents and staff believed HIPPY had helped prepare children for school, and had improved the relationship between the parent and child. Other benefits for children noted by parents were increased confidence, better concentration, improved reading and pre-reading skills, and improved fine motor skills in pencil and paper tasks. Several challenges were also noted. A 30 percent attrition rate over the two years was recorded, observed to be mainly related to single-parent families (5 of the 11 families), and mothers with an education level of Year 10 or less (9 of the 11 families) (Duffield, 2002). Other difficulties reported by parents were ambivalence about the role-playing technique used, the American language used in the materials, and finding the time to fit in the HIPPY work in the second year, once children started school.

The present study, which forms part of the staged research program by Victoria University mentioned above, constituted a response to the need of Glastonbury Child and Family Services to conduct more systematic research in respect of its second HIPPY intake in Geelong. Subsequently, the University has conducted five more HIPPY research projects of varying scope in Geelong and the neighbouring regional centre of Colac, three of which are ongoing at the time of writing this thesis.

2.3 Issues arising from HIPPY research to date

HIPPY targets some of the most disadvantaged and hard-to-reach families in society. These families often contend with unemployment, social isolation, substance use, violence, language and other immigration issues, and are often reliant on a single mother. As there are multiple demands on the physical and emotional energy of these parents, they can find it difficult to prioritise the work of even the most well-designed of programs. Furthermore, working with families who are frequently in dire circumstances can be very taxing on agency staff, particularly the Home Tutors, who often develop a close, empathic relationship with the parents in their groups, being drawn from the same community.

Nevertheless, research has shown that the gains for some children and their parents can be substantial, particularly in terms of learning readiness and the parent-child relationship. However, as HIPPY is a community-based program there are many factors to take into consideration in attempting to make sense of individual program outcomes (Britt, 1998). From the mixed results reported in several studies (e.g., Baker et al., 1998), it seems that HIPPY can work for some families but not for others. It is clear that more process evaluation research is needed in order to understand which aspects of HIPPY contribute to positive outcomes, and how HIPPY can be adapted to work in diverse contexts. One of the main features of the present study, as outlined in the next chapter, is the incorporation of an in-depth qualitative exploration of program implementation processes. How these considerations formed the grounding for the present study of HIPPY in Geelong is addressed in the next chapter.

CHAPTER THREE

CONCEPTUALISATION OF THE PRESENT STUDY

Certain features of the community served by Glastonbury in Geelong influenced the design of the research conducted. This chapter sets out the relevant contextual information that shaped the study, before progressing to outline its conceptualisation. The rationale, aims and overall design of the research are then described.

3.1 Implementation of HIPPY by Glastonbury Child and Family Services

Glastonbury Child and Family Services has been a major provider of family support services in the Geelong region for 150 years, evolving from its beginnings as an orphanage. No longer providing alternate care, its mandate today is to support disadvantaged families, on the basis of expertise in the area of early child development. The Glastonbury mission statement is as follows:

Our mission is to contribute to family preservation and well being in Geelong and surrounding districts through the provision of quality child and family services which:

- *Respect the integrity and cultural values of families;*
- *Promote the rights of children, young people and families to reach their full potential in a safe and positive environment; and*
- *Facilitate the development of citizenship and social justice for families and family members. (Glastonbury Child and Family Services, 2002, p.4)*

Glastonbury provides a wide range of programs to achieve its mission, and has taken up a special focus upon families with very young children and early intervention. According to Victor Coull, then Chief Executive Officer of Glastonbury (Duffield, 2002), the establishment of HIPPY in the Corio area of Geelong was partly a result of a study by Jesuit Social Services' Ignatius Centre for Social Policy and Research. In 1999, this non-government organisation identified the Corio / Norlane area as the fifth most socially

disadvantaged area in the state of Victoria. This finding, combined with strong research evidence of adverse long-term outcomes resulting from childhood disadvantage (for example, Buckner & Cain, 1998; Ramey & Ramey, 1998), formed the basis on which Glastonbury decided to establish HIPPY in 2000 in the Corio / Norlane area.

As described in Chapter 2, previous Australian implementations of HIPPY had been in ethnically-diverse immigrant communities in inner Melbourne. In contrast, HIPPY in Geelong was provided to Australian-born families, mostly of Anglo-Celtic background, who were recognised as socio-economically disadvantaged, and with parents of low levels of education. The profile of the community in which HIPPY was being delivered featured marked trans-generational educational disadvantage.

The HIPPY program was advertised in the local community as being for families who:

- *Have children who turn four by 30th April (the year before going to school)*
- *Families where parents have had limited opportunities for formal education themselves*
- *Families with a low income*
- *Families who would like to give their child a head start. (HIPPY Pamphlet, Glastonbury Child and Family Services, 2004, p.2)*

With regard to these official selection criteria, the agency tended towards a practice of inclusion. Part of Glastonbury's mission statement is to support families and children "to reach their full potential" (Glastonbury Child and Family Services, 2002, p.4). In line with this mandate to support vulnerable families, Glastonbury provides services to children with a diverse array of special needs. The agency asserted that there was scope for this program to provide assistance to children manifesting developmental delays of various kinds, and aimed to include such children in HIPPY for a remediation purpose. Thus the standard form of HIPPY in Geelong was to be used for early intervention in the sense of remediation, as well as the prevention of continuing educational disadvantage.

3.2 The opportunity for research

In line with current practice in the field, an evaluation of the second HIPPY program at Glastonbury was required as part of the agreement between Glastonbury and the two relevant funding bodies. Additionally, one of the objectives included in the Glastonbury mission statement is “to establish quality assurance, benchmarking and best practice processes and outcomes informed by practice research and literature reviews” (Glastonbury Child and Family Services, 2002, p.4). The Glastonbury Board of Directors strongly supported the research endeavour and granted the release of necessary funds for external evaluation. This meant that Glastonbury was able to finance the initial planning phase and year one of the data collection. Years two and three of the research were conducted in the context of a Doctorate of Psychology (Clinical Psychology) thesis within the School of Psychology, Victoria University, this being the present thesis.

3.3 Rationale of the present study

As outlined in Chapter 2, research into outcomes of children’s participation in HIPPY has found mixed, although generally positive, results. On the whole, reported gains in terms of children’s learning readiness, cognitive functioning and some aspects of socio-emotional development have been encouraging. On the other hand, a small number of studies have found little change in terms of program effects on learning readiness variables. Additionally, there have been complications in drawing conclusions about the outcomes of HIPPY because of variation in methodologies employed across studies, the practical and ethical difficulties of pursuing an experimental research design (Bradley & Gilkey, 2002), absence of baseline data (Gilley, 2002), the potential contribution of non-standard program elements (Bekman, 1990; van Tuijl et al., 2001), and lack of information about implementation contexts (Britt, 1998; Westheimer, 1997).

The small body of process evaluation research to date has gone some way in illuminating these outcome results, highlighting the relevance of implementation difficulties, program attrition, and community perception of HIPPY (Burgon et al., 1997).

In view of these findings, the present study sought to document program implementation processes and the experience of participating parents, to obtain a complex picture of HIPPY in this Australian non-immigrant context. This was deemed necessary in order to establish whether or not implementation of HIPPY is feasible in this community, and to identify ideas about adaptations that may be helpful in the future. Further, this was the first study to specifically document the experience of families where children had developmental delays, and for whom HIPPY was intended to have a remediation function, and to track the development of these children across the program's duration.

The process evaluation component extends work done by the agency in the evaluation of the first iteration of HIPPY in Geelong (Duffield, 2002), and provides a link between program processes and outcomes. The present study, of the second delivery of HIPPY in Geelong, was also to include formal testing of children's cognitive and socio-emotional development, to complement parents' reports of the impact of HIPPY on children.

3.4 Aims of the study

On the basis of the above rationale, four aims were formulated to guide the research.

Aim 1 was to determine whether the standard HIPPY program could be appropriately implemented with an Australian-born community, and with high needs families, some of whom included children with developmental delays.

Aim 2 was to determine whether, when delivered to such a community, the outcomes intended by HIPPY could be successfully achieved in terms of enhanced learning readiness, including with children experiencing developmental delay.

Aim 3 was to determine whether enhanced socio-emotional development was an outcome for children, again including children experiencing developmental delay.

Aim 4 was to explore the process of implementation of HIPPY in this community, by documenting barriers and facilitating factors, including suggestions for improvement made by parents and staff.

3.5 Overall design of the study

The research was designed as a longitudinal study consisting of three data collection time-points, one year apart. The first two waves of data collection occurred during the implementation of HIPPY, and the third wave constituted immediate post-program follow-up.

The study was exploratory in its approach, rather than attempting to conclusively demonstrate program efficacy. A randomised-controlled trial is the traditional, if not always optimal, approach to intervention outcome research. In the present case, however, as is often so in program evaluation in the field, the research endeavour was an adjunct to the existing program's implementation. As such, it was not possible (nor, it could be argued, ethical) for the researcher to devise randomisation strategies or direct the recruitment of families. Nor did the scope of the project permit the inclusion of a control group.

It was therefore decided that the focus would be on qualitative investigation of the processes and experience of program implementation in this new Australian context. Aims 2 and 3, involving evaluation of outcomes, would be approached through analysis of qualitative comments by parents, together with formal testing of children's progress using population norms as a comparison. Formal testing would also permit quantitative comparison of the developmentally delayed children, in the program for remediation, with the rest of the HIPPY cohort.

The methodology of the study thus employed complementary qualitative and quantitative approaches to both data collection and data analysis.

3.5.1 The qualitative dimension of the study

The study's qualitative component involved the use of semi-structured in-depth interviews at three points in time, and addressed all four research aims. Interviews were conducted with parents to explore their experience of participating in HIPPY (Aim 1), and any perceived changes in children's functioning as the program proceeded (Aims 2 and 3). The process of implementation of the program was also documented and explored through semi-structured interviews with Glastonbury HIPPY staff and parents (Aim 4).

It has been argued that, when the fundamental premises of traditional research methodologies are unable to fully explore the phenomena under study, a qualitative approach may be more appropriate (Miles & Huberman, 1984). In the present study a qualitative approach was felt to be the most useful means of providing participants with an opportunity to discuss issues arising from their unique subjective experience of the program (Patton, 1980; Rice & Ezzy, 1999). Such information is difficult, if not impossible, to elicit in a questionnaire where the researcher defines the areas of interest and makes assumptions about the relative importance of some issues over others. It was anticipated that this exploratory approach may encompass aspects of program implementation that had not previously been considered in the international HIPPY literature. Additionally, the triangulation technique of gaining multiple perspectives on program implementation promotes the validity of conclusions drawn and provides more complexity to the understanding of processes and outcomes (Miles & Huberman, 1984).

3.5.2 The quantitative dimension of the study

Alongside the in-depth interviews, psychological test data were obtained to address Aims 2 and 3 relating to changes in children's development over time. Consistent with the intentions of HIPPY, it was expected that, on average, children would demonstrate some improvement in learning readiness areas such as general cognitive development, scholastic skills, and school adjustment variables. Formal assessment would also entail some quantitative assessment by children's teachers. Previous research (Grady, 2002;

Kagitcibasi, 1996; van Tuijl & Leseman, 2004) has indicated that some gains in socio-emotional development may flow from participation in HIPPY, so assessment of this domain was also included.

For each psychological technique employed, results for children enrolled for remediation purposes were compared with the other children in HIPPY to explore whether this sub-group with developmental delays appeared to benefit from the program.

CHAPTER FOUR

METHOD

This chapter sets out the method of the present study, commencing with an outline of its longitudinal structure. The groups of participants to be involved are then described, followed by full details of the range of data collection methods planned and implemented. It goes on to set out the procedures for data collection across time, and concludes with description of the data analyses conducted.

4.1 The longitudinal design of the study

A longitudinal study design comprising three waves of data collection was employed so that any change over time could be monitored. The first wave of data collection was in the second half of 2001, during the first year of participation in HIPPY. The second wave occurred in 2002, in the second year of HIPPY involvement, with the third wave scheduled post-program in 2003. Each year, parent interviews were conducted first, followed by formal testing of children, and collection of teacher assessments. After this, the Home Tutors were interviewed, followed by Glastonbury senior staff. This progression allowed any concerns raised by parents to be discussed with staff, in order to assist with program improvement. (Feedback to Glastonbury from the research is discussed further in Section 11.1 Implications for future implementation of HIPPY in Australia.)

4.2 Intended participants

All of the 28 families enrolled in the second HIPPY intake in Geelong were potential participants in the study. Research subjects were the children, aged approximately 4 years at program intake (2001), and parents involved in HIPPY.

Also participating in process evaluation interviews were relevant staff of Glastonbury Child and Family Services. These were the CEO, the HIPPY Co-ordinator and the five Home Tutors.

Teachers from the schools attended by the children in years two and three of the research were asked to complete two rating scales of children's learning readiness. Approval to contact schools was granted by the Victorian Department of Education and Training, and the Victorian Catholic Education Office.

4.3 Methods of data collection

Methods of data collection, each described below, comprised in-depth interviews, field observation notes by the researcher, and formal psychological techniques to assess several aspects of children's developmental status.

4.3.1 In-depth interview methodology

Each of the three years of data collection included semi-structured in-depth interviews with the parents and staff involved in the program (Minichiello, Aroni, Timewell, & Alexander, 1990; Rice & Ezzy, 1999). The researcher was a post-graduate Clinical Psychology trainee with many years' experience of clinical and research interviewing.

At each wave of data collection, permission of participants was sought to audio-record interviews, and the procedures of transcribing and anonymously reporting data were explained. This was followed by the opportunity for the respondent to ask questions or clarify any issues about the research process. Each interview began with a general discussion of HIPPY and the respondent's experience of participation. The interview then moved into more specific areas of evaluation, such as what aspects had worked well, any difficulties arising, and suggestions for improvement. It concluded with an open question about whether there was anything else the respondent would like to add. The interview was semi-structured in nature so that the tone was conversational, and allowed the

researcher to probe and clarify issues as they arose. Interview protocols are presented as Appendix 2.

Interviews with the children participating in HIPPY were also considered, but ethical considerations, as well as the burden of an already lengthy testing session, were felt to be prohibitive. The researcher sought to minimise the amount of disruption to children's schooling and family life wherever possible. Nevertheless, the experience of the current study strongly suggests that interviews with children should be included in future HIPPY research.

4.3.1.1 Conduct of parent interviews

Interviews were arranged in parents' own homes. Essential aspects of the interview process included establishing rapport and taking a non-judgmental stance (Minichiello et al., 1990). It often seemed that HIPPY parents were not accustomed to their opinions being sought about matters of importance, and it was considered critical that the interview environment was friendly and informal. The visit therefore typically commenced with some general talk about the children in the family and their development, underlining that there was plenty of time available, so the interview protocol did not have to be rushed. Conversation was allowed to develop in a spontaneous and natural flow, with issues the parent considered important receiving priority. Whenever possible, the researcher allowed the parent to lead the discussion.

4.3.1.2 Conduct of Home Tutor interviews

Interviews with the Home Tutors also took place in their own homes. These interviews provided a space for the Home Tutors to reflect on their experience in HIPPY, and express any concerns they had about the implementation of the program, as well as any other relevant observations.

The conduct of the Home Tutor interviews largely involved procedures similar to those for the parent interviews, such as building rapport, and allowing the respondent to elaborate as necessary. Two of the Home Tutors had been interviewed previously as

HIPPY parents, and were asked to put their “Home Tutor hat on” at this time, so that it was clear which perspective the interview was seeking.

4.3.1.3 Conduct of senior agency staff interviews

The researcher was known to senior staff through attendance at HIPPY research team meetings. Staff members, namely the Glastonbury CEO and HIPPY Co-ordinator, participated in interviews towards the end of each year of the research. More educated than other participants, staff were expected to be quite confident in interview, requiring less prompting. Nevertheless, care was still taken to develop rapport, and a respectful, non-judgemental stance was maintained by the researcher.

4.3.1.4 Field observation notes

In addition to the interview transcripts, field observation notes were made by the researcher immediately after each interview and child assessment session. These notes described the researcher’s subjective impressions of the contact, and provide another potential source of information about the processes at work in HIPPY.

Included in the notes was any additional information provided by parents and others outside the formal interview. For example, in one instance the child’s grandmother was present while the mother was being interviewed and she was keen to impart her ideas about her grand-daughter’s involvement in HIPPY. With regard to child assessments, the field notes included observations about the child’s behaviour, engagement with the assessment, and emotional responses to the testing, such as enthusiasm, anxiety or competitiveness. Conversations with teachers during school visits were also recorded in the field notes. An unidentifiable example is provided as Appendix 3.

4.3.2 Formal psychological techniques administered

The quantitative component of the research involved formal measurement of children's cognitive, educational and socio-emotional outcomes at the three points of time relative to their participation in the program. Quantitative measures were all standardised tests, namely the *Early Screening Profiles Cognitive / Language Profile*; the *Kaufman Brief Intelligence Test*; the *Who Am I? Test*; the *Vineland Adaptive Behavior Scales*; the *Gumpel Readiness Inventory*; and the *Behavioral Academic Self-Esteem Scale*.

Table 1 presents how these formal techniques were intended to assess different aspects of children's development, and how they were used across the three waves. Each of these techniques is described in turn below, including details of reliability and validity as demonstrated in previous research.

Table 1

Psychological tests employed across the three waves of the study

Domain	Wave 1 (2001)	Wave 2 (2002)	Wave 3 (2003)
Cognitive development	Early Screening Profiles	Early Screening Profiles	Kaufman Brief Intelligence Test
School skills	Who Am I?	Who Am I?	Who Am I?
Socio-emotional development	Vineland Adaptive Behavior Scales	Vineland Adaptive Behavior Scales	Vineland Adaptive Behavior Scales
School adjustment	Not applicable	Gumpel School Readiness Inventory	Gumpel School Readiness Inventory
	Not applicable	Behavioral Academic Self-Esteem Scale	Behavioral Academic Self-Esteem Scale

4.3.2.1 The Early Screening Profiles

The *Early Screening Profiles* (ESP; Harrison, 1990) were designed to assess children's general cognitive development in the domains of *Cognitive / Language skills*,

Motor skills, and *Self-help / Social skills*. The profiles were developed for use with children between the ages of 2 years and 6 years, 11 months. The *Cognitive / Language profile* was used in the present study and measures children's ability using standard scores on three sub-scales, namely *Verbal Concepts*, *Visual Discrimination*, and *Logical Relations*.

The *ESP Cognitive / Language profile* has demonstrated good internal consistency for children between the ages of 4 and 6 (α ranges from .89 to .93). The manual also presents data on test-retest reliability which is strong for both immediate (.88) and delayed (.80) retest.

Multiple studies have demonstrated both concurrent and predictive construct validity by comparing the *Cognitive / Language profile* with other tests of early cognitive development such as the *Peabody Picture Vocabulary Test – Revised*, the *Battelle Developmental Inventory*, and the *Social Skills Rating System* (Harrison, 1990).

The *ESP* was chosen at the beginning of the research study because it is brief, commonly used, and easily administered, and covers the age range of children for whom HIPPY is intended.

4.3.2.2 The Kaufman Brief Intelligence Test

As the study progressed, it became clear that the agency's policy and practice of inclusion meant that several children were older than prescribed by standard HIPPY guidelines (Lombard et al., 1999). The *ESP*, with a ceiling of 6 years 11 months, would therefore no longer be suitable at Wave 3 of the data collection. An alternative, yet closely corresponding, brief standardised test of general cognitive functioning was therefore sought for Wave 3. The *Vocabulary* and *Matrices* subtests of the *Kaufman Brief Intelligence Test (K-BIT; Kaufman & Kaufman, 1990)* assess very similar domains to those of the *ESP Cognitive / Language profile*. The *K-BIT* is designed to provide an estimate of cognitive ability in individuals between the ages of 4 and 90 years of age. The *Vocabulary* subtest involves naming objects shown in pictures. The *Matrices* subtest requires subjects to solve matrix analogies that relate familiar objects to each other.

According to the manual, the *K-BIT* has strong internal consistency ($\alpha = .92$ for children aged 4 to 19), and test-retest reliability of at least .90 in each age group (Kaufman & Kaufman, 1990). Construct validity has been demonstrated in the form of high correlations between results on the *K-BIT* composite score and other general tests of intelligence such as the *WISC-III* Full-Scale IQ score (Grados & Russo-Garcia, 1999).

4.3.2.3 The Who am I? test

The *Who Am I?* is an Australian measure designed to assess young children's level of cognitive development as it relates to early school skills such as beginning literacy and numeracy (de Lemos & Doig, 1999). The test booklet is completed by the child under the supervision of an examiner, and consists of several writing tasks and a self-portrait. Responses are scored according to their level of competence on a scale from Level 0 (no response) to Level 4 (clear and recognisable). Examples of responses at each level are provided in the test manual to guide scoring. The *Who am I?* provides three numerical sub-scores and a total score out of a possible 44.

Previous unpublished Australian HIPPY research using the *Who am I?* found an internal consistency of $\alpha = .80$ indicating acceptable reliability (Gilley, 2002). The manual presents evidence of criterion-related validity in terms of how scores on the *Who am I?* relate to other measures of early literacy and numeracy. Correlations ranged from 0.48 to 0.63 indicating an acceptable level of validity (de Lemos & Doig, 1999).

4.3.2.4 The Vineland Adaptive Behavior Scales

The *Vineland Adaptive Behavior Scales (VABS) Survey Form* contains 297 items to assess the everyday social and emotional functioning of individuals from birth through to 18 years, 11 months (Sparrow, Balla & Cicchetti, 1984). The *VABS* is a frequently-used and comprehensive measure of individual competence and assesses four domains of adaptive behaviour, namely *Communication*, *Daily Living Skills*, *Socialization* and *Motor Skills*.

In the present study, the *Socialization composite* standard score was used to provide an indication of children's overall development in this domain. The composite score is comprised of three subscales, these being *Interpersonal Relationships*, *Play and Leisure time*, and *Coping Skills*. The test is administered as a semi-structured interview with the parent or guardian, and documents how the child interacts in the home and external environment (Sparrow et al., 1984).

The manual reports strong split-half reliability (between .94 and .96) for children aged 4 to 7 years, and test-retest reliability of .77 to .93 for the same age range (Sparrow et al., 1984).

As part of the standardisation procedures, the authors conducted several tests of validity. Sparrow et al. (1984) reported that scores on the *VABS* were able to distinguish between mentally-retarded individuals according to intensity of support in their daily living arrangements. Also, children with emotional disturbance tended to score lowest in the *Socialization* domain, while hearing-impaired children scored lowest in the *Communication* domain.

4.3.2.5 The Gumpel Readiness Inventory

The *Gumpel Readiness Inventory (GRI)* was developed in association with HIPPY International in Israel as a tool for assessing school readiness in six-year-old children (Gumpel, 1999). The *GRI* is completed by teachers and rates children on six items according to a four-point scale from "never behaves this way" to "always behaves this way", giving a overall score out of a possible 24.

Gumpel (1999) reported an internal consistency rating of $\alpha = .86$ indicating acceptable reliability. In terms of criterion-related validity, the *GRI* was found to discriminate between children who had participated in HIPPY (more ready for school) and children who had not completed HIPPY (less ready for school).

Two recent Australian studies have subsequently demonstrated sound psychometric properties of the scale. A validation study of the *GRI* found that scores were able to distinguish between six-year-old Grade One children who had attended

kindergarten and children who had not (Moussa, 2000). Similarly, previous HIPPY research in Melbourne found that children who had participated in the program for two years significantly outperformed controls on the *GRI* (Gilley, 2002).

4.3.2.6 The Behavioral Academic Self-Esteem Scale

The *Behavioral Academic Self-Esteem Scale (BASE)* is a teacher-completed measure based on observation and knowledge of the student (Coopersmith & Gilberts, 1982). It was developed in the United States and elicits five dimensions of self-esteem observable in the classroom context, namely *Student Initiative*, *Social Attention*, *Success/Failure*, *Social Attraction*, and *Self-confidence*. The *BASE* provides numerical totals for each sub-score, which combine to form an overall numerical total out of a possible 80.

The *BASE* was found to have 0.83 internal consistency and inter-rater reliability of 0.71 by the test authors in the United States (Coopersmith & Gilberts, 1982). In a recent New Zealand study, the *BASE* was shown to have very strong internal consistency of 0.92 and split-half reliability of 0.90 (Barhava-Monteith et al., 1999a).

4.4 Procedures of the study

4.4.1 Recruitment of families

Families were recruited to the research by Home Tutors as they commenced HIPPY. Information was provided about the purpose and procedures of the research, in both a verbal and written invitation, and there was an opportunity for any questions to be clarified. In this explanation it was emphasised to parents that their participation was voluntary, such that if they declined to be contacted for the research this would not impact on their involvement in HIPPY, or with Glastonbury, in any way. All written invitations and consent forms used are included as Appendix 4.

Parents were not remunerated for their participation in the research.

4.4.2 Data collection procedures

4.4.2.1 Parent interview procedures

Contact with families throughout the three years of the research was facilitated by the agency. Once initial recruitment had taken place, Glastonbury provided the researcher with a list of contact details for the families who had consented to participate in the research. Families were then telephoned by the researcher. Since the families had already been provided with information and the opportunity for questions by their Home Tutors, in the recruitment process, they were familiar with what the research involved. Therefore, at this time the researcher briefly reiterated the HIPPY research procedure and asked the parent for consent to proceed. Once this consent was given, a convenient time for the researcher's visit was established. Particular effort was made by the researcher to be as flexible as possible, in order to make the interviews feasible for parents. For example, where necessary, evening or weekend visits were arranged. A reminder phone call was made to the parent on the evening prior to the interview to check that it was still convenient. When necessary, alternative times were arranged.

At each interview, confidentiality protocols were first explained and a consent form was signed by the parent indicating willingness to be involved (see Appendix 4). Once children had started school, the parent's permission to visit the child and teacher at school was requested again verbally.

4.4.2.2 School visit procedures

A letter was sent to the Principal of each school outlining the research and providing the names of the children involved. Reference was also made in this letter to the approval to conduct the research granted by either the Victorian Department of Education or the Catholic Education Office as relevant. Permission was sought to conduct the child assessment during the school day, and to approach teachers to complete the two brief questionnaires. Copies of the parents' signed consent forms were forwarded to the school with the letter outlining the research.

Once permission was granted by the Principal, teachers were approached by the researcher at the school, at the time of the child assessments. Teacher consent forms and test forms were left with the teachers, together with the researcher's contact details, in case any questions or issues arose in the completion of questionnaires. A stamped addressed envelope was provided so that the teacher could complete the forms at a convenient time and return them to the researcher free of cost.

The timing of the psychological testing during the school day was necessary because an after-school visit to the family home would have found children tired from a long day at school, and thus would not have captured their true abilities. Also the researcher preferred not to impose on the family any more than was absolutely necessary. The school visit additionally meant that the researcher was able to meet briefly with the teacher to explain the research and answer any questions or concerns.

4.4.2.3 Staff interview procedures

Contact with the Home Tutors was facilitated by Glastonbury. The researcher attended a team meeting at the start of HIPPY and the research project was explained. It was made clear at this time that Home Tutors were not obligated to consent to the research study. All related documentation carried the name of Victoria University, indicating that the research was independent of the agency (see Appendix 4). It was emphasised that participation was voluntary, and that non-participation would not have any adverse impact on the Home Tutor's employment by Glastonbury. All five Home Tutors consented to participate, and were generous supporters of the research endeavour.

At each of the three waves of data collection Home Tutors were telephoned by the researcher to arrange a convenient time for the interview. Interviews were conducted in the Home Tutors' own homes in order to minimise inconvenience and expense to them.

Interviews with other staff of Glastonbury, namely the CEO and HIPPY Co-ordinator, were conducted at the agency premises at a convenient time. Once again it was important that the researcher was flexible in order to minimise the disruption to respondents' busy work schedules.

Agency staff reviewed transcripts of their interviews each year, and preliminary research reports, to ensure they were satisfied with the representation of their views, and to approve the interpretation and use of sensitive information provided on some topics. At all times the researcher took a cautious approach in the presentation of such data in the thesis in order to safeguard these easily-identified interviewees. All information statements and consent forms are included as Appendix 4.

4.5 Analysis of the data

4.5.1 Qualitative data analysis

Following the qualitative method outlined by Miles and Huberman (1984), all interview data were transcribed by the researcher and then coded to identify predominant themes. This thematic content analysis began with each transcript being read many times in hard copy and annotated in terms of the ideas conveyed. Coding of the content was then undertaken on individual units of meaning relating to HIPPY. The thematic codes used by the researcher emerged from the data and were not pre-determined according to theoretical or other expectations.

For each main question asked in the semi-structured interview, comments were summarised into emergent theme headings or codes around particular issues. Themes emerging from participants' narratives were then clustered into higher-order categories, and tables or matrices were constructed to display these themes. A sample page of an interview transcript showing how thematic codes were assigned appears as Appendix 5, and a matrix displaying clustering of codes into higher-order themes is presented as Appendix 6.

Data reduction then proceeded as recommended by Miles and Huberman (1984), so that the frequency of responses for each theme was displayed in a further matrix. These frequency matrices can be found in Chapters 7, 8 and 9, where they present the interview data as findings, illustrated by poignant or insightful quotes from interviews concerning the various emergent themes.

Following the coding of responses to specific questions in the interview protocol, the transcripts were then re-examined for any additional information which emerged in conversation about the program, not specifically associated with questions asked. This was in recognition of the fact that the questions in the semi-structured interview protocol may not have exhaustively tapped parents' experience of HIPPY. In this way, the researcher sought to fully capture thoughts about the program volunteered by participants and the experience of their involvement.

4.5.2 Statistical data analysis

Paired samples t-tests were used to ascertain whether children's performance on the various tests had changed significantly across time from the first year to follow-up. Independent samples t-tests were used to see whether there were differences between the developmentally delayed remediation group and the other children. The probability value of $p < 0.05$ was used throughout to determine statistical significance. Data were analysed using SPSS Version 12 (2003).

Where possible, standard scores were used, which take into account a developmentally-appropriate level of functioning based on population norms. Participants' scores on a test are converted to standard scores which are based on a normal distribution of scores within the general population, and have a mean of 100 and a standard deviation of 15. Across the whole population, most scores will cluster around the mean with fewer at the high and low extremes of the distribution. Thus, a subject's score on a particular test can be plotted for comparison to age-peers to determine how that subject is performing relative to others. If a child is functioning normally his or her score will lie in the vicinity of 100. Similarly, if a study sample is representative of the underlying population the group mean will be close to 100. This is particularly important when testing children, as childhood is a time of rapid development in many domains of functioning and so raw scores on any given test would be expected to increase over time. On the other

hand, a normal developmental trajectory reflected in standard scores would produce a similar numerical value from one year to the next.

In accordance with Aims 2 and 3 of the study, for each of the psychological tests, comparisons were made firstly across waves, and secondly, within waves between the remediation group (the group of 11 children who were enrolled because of perceived developmental delays) and the other 13 children. Independent samples t-tests were conducted to determine whether or not the average results for the two groups were different. Considering that the remediation group were enrolled to help address perceived deficits, it was expected that they would generally tend to score lower than the rest of the HIPPY children on the standardised measures. It was expected that if HIPPY did provide some assistance to the remediation group, their scores should improve, with the difference between the two groups decreasing over time.

4.6 Presentation of the findings of the study

The following chapter describes the characteristics of the participants in the study that are relevant to the research. Chapter 6 then presents findings relating to the process of program implementation. Next, Chapter 7 describes changes observed in children's functioning over the three years of the research. Finally, Chapters 8 and 9 discuss process evaluation findings relating to facilitating factors and difficulties encountered by participants in HIPPY.

CHAPTER FIVE

FINDINGS: PARTICIPANTS IN THE RESEARCH

Participants in the research included Glastonbury staff members and most of the parents and children involved in the HIPPY cohort commencing in 2001 in Geelong. This chapter describes features of these groups that are considered to have impacted on the study.

5.1 Responsiveness of participants to the research

Without exception, the agency staff involved in HIPPY were enthusiastic supporters of the research, making time in their busy schedules to reflect on their work and inform the program evaluation. The research was also well supported by the HIPPY families involved.

5.1.1 Involvement of key agency staff members in the overall research process

Key agency staff attended research team meetings and contributed to fine-tuning the design of the research. This input was generously provided by the CEO of Glastonbury, the HIPPY Co-ordinator, and the Family Development Unit Manager.

Interviews conducted towards the end of each of the three years of the research with the CEO and the HIPPY Co-ordinator provided space for in-depth appraisal of the program's implementation.

It is critical to note that during the research timeframe there were two successive HIPPY Co-ordinators. The original HIPPY Co-ordinator left Glastonbury mid-2001 and was therefore not available to participate in the research interviews. The second Co-ordinator was appointed towards the end of this first year of the program and was

interviewed at each wave of data collection. Thus, when information provided by “the HIPPY Co-ordinator” is cited below, the term refers to the second HIPPY Co-ordinator.

5.1.2 Involvement of Home Tutors in the research

All five Home Tutors participated over the three years of data collection. All agreed to be interviewed at each wave, and provided useful accounts of their experience of HIPPY. Two of the Home Tutors were also interviewed as mothers participating in the program.

5.1.3 Involvement of HIPPY families in the research

From the outset, 23 of the 27 families enrolled in HIPPY willingly consented to the research, and most were able to maintain this commitment for the duration of the project. Parents gave their time and thoughts generously, often appearing to develop insight into their experience of HIPPY as they progressed.

Almost all the children engaged well with the psychological testing, and seemed to find their assessment sessions enjoyable. Most keenly looked forward to the fun stickers they received at the end of each assessment, something they quickly learned from the first year.

5.2 Description of participating families

5.2.1 Demographic information

The 23 families included 24 children, as one family had twins participating in HIPPY. The total sample of children consisted of 14 girls (58%) and 10 boys (42%). Of the 24 children, 8 lived with their single mother, and 13 came from two-parent families. Two families became single-parent families during the research timeframe, one due to separation, while in the second family the mother’s partner died. One child lived with her aunt and uncle. Table 2 presents information concerning the ages of children at the time

of data collection, towards the end of the year in 2001 (Wave 1), 2002 (Wave 2) and 2003 (Wave 3).

Table 2

Mean age of child participants across waves

	<u>m</u>	Standard Deviation	Range	<u>n</u>
Wave 1	4.80 yrs	4.69 m	3.9 - 5.5 yrs	24
Wave 2	5.96 yrs	5.41 m	5.0 - 6.7 yrs	22
Wave 3	7.07 yrs	5.31 m	6.2 - 7.8 yrs	18

As can be seen from Table 2, the ages of participating children varied considerably. Because this early period of childhood sees varying rates of rapid development, the sample contained children at diverse stages, with some children demonstrating relatively mature skills in certain areas, such as fine motor control, and others just beginning to acquire them.

5.2.2 Heterogeneity of the sample

HIPPY children in this cohort were therefore heterogeneous in developmental stage as well as age. According to their parents in interview, 11 of the 24 children were participating in HIPPY for a remediation purpose because of certain developmental delays. In other words, 46% of the child participants were beyond the standard inclusion criteria for HIPPY (Lombard, Levy, Marcoshemer, Gerslenfeld, & Ginsberg, 1999). Diagnosis of developmental disability, psychotropic medication regimes, and involvement with psycho-social intervention by another agency were all features of this sample, and are displayed in Table 3.

Table 3

Characteristics of the sample

	Number of Children*	% of total
Diagnosis of developmental disability	5	20.8
Psychotropic Medication (Prozac, Ritalin)	3	12.5
Other agency intervention	9	37.5

* Total $n=24$

Firstly, Table 3 shows that the sample included five children (20.8%) with formal diagnoses relating to developmental difficulties. These diagnoses were Attention Deficit-Hyperactivity Disorder (ADHD), Autism, Asperger's Syndrome, and Deafness, while one further child wore a corrective eye patch over one eye.

Secondly, psychotropic medication had been prescribed for some of these conditions (for 12.5% of the children).

In terms of intervention of some kind in addition to HIPPY, Table 3 reveals that this applied to 37.5% of the children. One family was involved with the State Department of Human Services (DHS), five children were receiving, or had received, speech therapy, and three were involved in the local DHS Early Childhood "Gateways" program for behavioural difficulties. One of the Gateways children was being managed by a paediatrician, or what his parent referred as his "behavioural doctor", for ADHD.

In addition to the children described above, several others were reported by their parents to have developmental delays of some kind. Overall, of the 24 children in the original research sample, 11 (45.8%) were enrolled in HIPPY by their parents for the express purpose of remediation of developmental difficulties previously identified. As part of Glastonbury's mission and practice of inclusiveness, described in Section 3.1 above, agency staff felt that there was scope for HIPPY to assist in the area of developmental delay. The experience of children and their families who were included in this capacity is of particular interest, as HIPPY was not designed for children with remediation needs.

5.3 Involvement of families in the three waves of data collection

As noted above, of the 27 families (with 28 children, two being a set of twins), 23 consented to participate in the research, and the research commenced with 24 children in the sample, including the twins.

The number of child and parent research participants then varied over the three waves of data collection. The flow of participants across waves is presented in Figure 1, on page 52 below, which displays how participant attrition occurred.

Figure 1 shows that, in Wave 1, 24 children (including one pair of twins) participated, together with their 23 parents. At Wave 2, participants were 22 children (still including the twins) and 21 parents. By Wave 3, 18 children (75%) remained in the research cohort. Four families withdrew from the actual HIPPY program (program attrition), and two did not continue in the research project (loss to follow-up).

5.3.1 Program attrition

A total of four families withdrew from HIPPY before completion of the program and graduation. Two families withdrew from the program between Waves 1 and 2, and a further two families withdrew between Waves 2 and 3. The two families who withdrew after Wave 1 were unable to be contacted subsequently, and it appeared that one of these families had moved away from the local community altogether. At Wave 3, on advice from the HIPPY Co-ordinator, and due to their particular circumstances, the second two families were not followed up for the research.

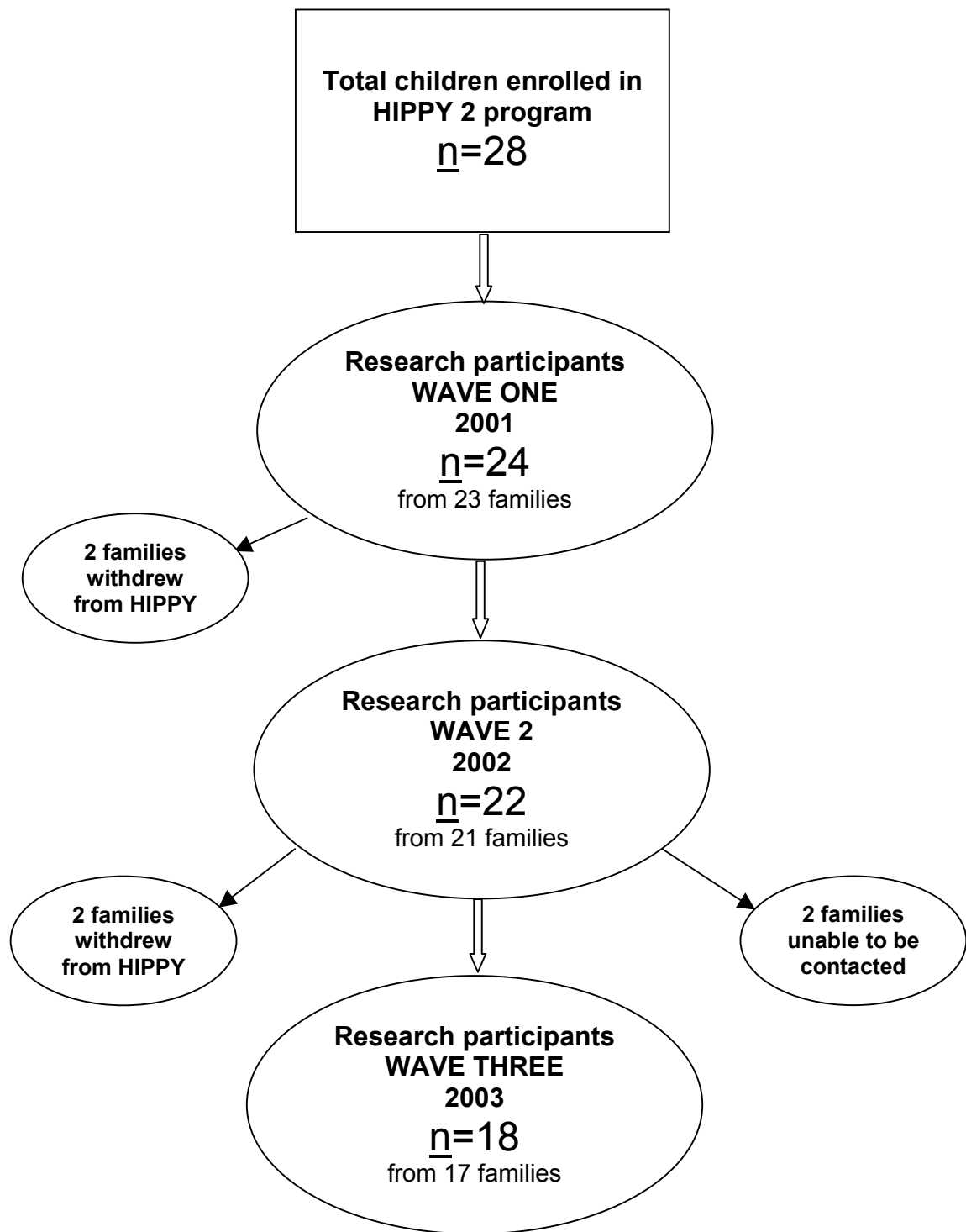


Figure 1 Data collected across the three waves of the study

From the outset, the agency and the researcher agreed that neither HIPPY nor the research should become a burden to these families, often already under considerable pressure. For example, at Wave 1, one family was unable to continue in HIPPY as the mother, a sole parent of a large family, had recently commenced treatment for a serious illness, and was also having difficulty with an adolescent child. Once it was clear that this mother could not be contacted at her last known address, the researcher decided not to persist with follow-up attempts, considering the family's stressful circumstances.

5.3.2 Loss to follow-up in the research

Between Waves 2 and 3, after HIPPY itself had concluded, two further families were lost to follow-up in the research. These families were unable to be contacted due to disconnected telephones, and no answer when the researcher visited their home addresses. Despite efforts to locate them, including a letter sent to their last known address, they were unable to be included in Wave 3. In relation to the issue of follow-up, it should be remembered that the third wave of data collection occurred post-program and so families were no longer necessarily linked with Glastonbury. Thus contacting them was more difficult than in the first two years during program implementation.

In summary, of the original 24 child participants who began the research, six did not complete it, leaving an attrition rate of 25%. Nevertheless, it is notable that three-quarters of the children were retained in both the program and the research over the three years.

CHAPTER SIX

PROCESS EVALUATION FINDINGS: PROGRAM IMPLEMENTATION

The first aim of the study was to investigate, in a systematic way, whether HIPPY could be appropriately implemented with the community targeted here, involving Australian-born families, many with high needs, and some including children with developmental delays.

As expressed in Aim 1 of the present study, it was critical to clarify to what extent the actual implementation of the program conformed with the standard guidelines for the program. Thus conclusions could be drawn about how the processes and outcomes evaluated actually relate to the program as planned. Conclusions could also be drawn about the flexibility of the standard program.

This chapter integrates the analyses of the reports made by HIPPY staff and parents in their research interviews, concerning a range of aspects of program implementation. The overall thrust of the implementation is considered first. This is followed by a description of emergent variations in adherence to the standard guidelines for the implementation of HIPPY. Finally, a conclusion is reached concerning the implications of the study of this implementation of the program for HIPPY research in general.

6.1 Overall adherence to standard HIPPY guidelines

As outlined in Section 3.1, in line with its mission to provide service to high needs families, the Glastonbury implementation of HIPPY extended recruitment of families to include children with developmental delay. Apart from this adaptation, however, according to Glastonbury management (CEO, 2001), the basic standard

HIPPY model originally described by Lombard (1994) and by the HIPPY Manual (HIPPY Australia, 1999; Lombard et al., 1999) was intended to be followed in the delivery of the program being studied.

Review of the reports by all participants did indeed indicate that the standard guidelines for HIPPY were generally kept well in mind. An adequate number of Home Tutors were allocated an appropriate number of families. The HIPPY materials were presented in their sequential flow to parents at home visits, fortnightly group meetings were offered, and Home Tutors and families kept up to date with the program on an ongoing basis.

There were, however, a few ways in which procedures did not strictly adhere to the standard guidelines. These variations were due to unforeseen circumstances arising, and were not part of any intentional non-conformity. The following sections therefore focus on the ways in which program delivery diverged from the standard HIPPY model, and explore the reasons for this, as well as how agency staff managed the discrepancies.

6.2 Areas of some variation in program implementation

As staffing changes over time may have had the most profound effect on program implementation, this issue is discussed first, in Section 6.2.1. This is followed by consideration of recruitment processes in Section 6.2.2, the delay in commencement of program delivery to parents in Section 6.2.3, and the training, supervision and support of Home Tutors in Section 6.2.4. Issues concerning mode of program delivery and fortnightly parent group meeting issues are then addressed in Sections 6.2.5 and 6.2.6 respectively.

6.2.1 Staffing of the program

The present Glastonbury iteration of HIPPY was delivered to families by a team consisting of a professional Co-ordinator and five Home Tutors, two of whom had children enrolled in the program. Three of the Home Tutors had been with the program since the previous year, and had received some training and supervision at that time. The other two Home Tutors joined HIPPY at the beginning of 2001 and had no prior experience of this kind of work. All five Home Tutors remained with HIPPY for the duration of the program, although one had approximately six months' maternity leave in the middle of 2002.

The CEO described the appointment of the Home Tutors in his Wave 2 interview:

The first three were found through preschools or primary schools. The Co-ordinator made quite a bit of contact with preschools and primary schools and their names came up. And she visited them and spoke about what was happening. The other two had children that were in the program. They were selected from the intake in 2001. There was some background knowledge about how they were functioning. (CEO, 2002).

This pattern of employment of Home Tutors accorded well with the HIPPY guidelines as set out in the manual (Lombard et al., 1999).

Issues relating to the Co-ordinator's position were not so straightforward, however. The original Co-ordinator had taken up her position in 2000 to successfully initiate and manage, in that year, the first Glastonbury delivery of the HIPPY program. According to HIPPY management staff, this Co-ordinator developed personal difficulties in early 2001, which disrupted her working life and led to some unforeseen absences. When the seriousness of this situation became apparent, the agency took a pastoral approach in the support and management of the Co-ordinator and her workload, but her employment by the agency came to an end mid-year. The position was then advertised and an internal applicant was selected as the new Co-ordinator at the beginning of September 2001. Until the end of October 2001, this new Co-ordinator retained commitments to another early childhood program at Glastonbury, and so was effectively in two positions during this time. She was

therefore only fully available to HIPPY towards the end of the year, with the impending graduation of the previous HIPPY intake necessarily assuming first priority.

The departure of the initial Co-ordinator, and the problems leading up to this, appeared to have a pervasive and ongoing impact on many aspects of program implementation, as reported below. It is important to note, however, that the first Co-ordinator's perspective of events was not able to be included in the research, so interpretation of this issue requires some caution.

Research interviews with the CEO of Glastonbury and the new Co-ordinator revealed that, during the first part of 2001, the original Co-ordinator's work attendance became irregular, and her capacity for co-ordination of the program and supervision of staff was compromised. Responsibility for recruitment of families and subsequently for the delivery of the program itself increasingly devolved to the Home Tutors, who acted as an extraordinarily resourceful team. For most of 2001, the program was maintained by the Home Tutors, who had received little in the way of training or induction, and who were largely unsupervised in their efforts. According to the new Co-ordinator:

I suppose the initial thing was that the Home Tutors kept it going ... and the parents knew very little about what was going on behind the scenes. So they had put up a very united front indeed. Well, certainly to my knowledge the parents didn't know what was happening behind the scenes, so they presented um the program in a way that met the needs of the families too. Otherwise they wouldn't have retained them for that - you know - it was probably about six months ... So, you know, that's quite a lengthy period of time to have to sort of keep things going, and pretend everything was okay when you know it wasn't. (Co-ordinator, 2003)

The role of the Home Tutors in HIPPY evolved into something far greater than stipulated in the program guidelines. In his Wave 3 interview, the CEO explained how he believed this had worked:

There was um some division of labour between them ... One of the Home Tutors, (HT1), I think she adopted a leadership role, um (HT2) adopted a resource-support role. And it was the, I can't quite get the word, it was the um ethos and support they developed that helped things through. (HT3) was fairly new and she was a bit low in confidence, (HT4) was ah, she'd been

around from the start and seemed to be a real asset, but in those days she was probably suffering from some lack of confidence herself ... There was turmoil going on and they were sort of caught up in the maelstrom of it all. And it was their um, the way they held together was really the highlight. And um it was them that saved the program. (CEO, 2003)

6.2.2 Recruitment of families

HIPPY was to be offered to families living in the Corio area of Geelong who:

- *Have children who turn four by 30th April (the year before going to school)*
- *Families where parents have had limited opportunities for formal education themselves*
- *Families with a low income*
- *Families who would like to give their child a head start. (HIPPY Pamphlet, Glastonbury Child and Family Services, 2004, p.2)*

However, some variation in the standard recruitment criteria outlined by Lombard (1990) did occur. In some instances this was by design, as a feature of Glastonbury policy to support families in need. In other cases variations were unplanned and in response to unforeseen circumstances.

6.2.2.1 Recruitment of high needs families

As noted in Section 3.1, it was the policy of Glastonbury to embrace in HIPPY families with high needs, including those with children experiencing developmental delay. A challenge noted by several HIPPY staff interviewees was the recruitment of families who were in particularly difficult circumstances, and the concern that HIPPY could become simply another burden for them. The CEO of Glastonbury remarked that, in his opinion, the balance between high needs and well-functioning families had possibly not been achieved, and that the agency's informal policy of inclusion had perhaps been stretched too far by the first Co-ordinator:

Should families where the parent isn't parenting very well, and the family has a complex range of problems - should those families be excluded? ... But on the other hand, we need to be very careful ... to maintain the balance between um more workable families and more difficult families. If we don't

maintain that - perhaps it's about ... one-third more complex families ... is something we need to think through. (CEO, 2003)

6.2.2.2 Recruitment of children beyond the standard HIPPY criteria

In addition to the above, standard selection criteria were not always applied with precision by the original Co-ordinator in the recruitment phase of early 2001. It was noted by several staff members that, in the urgency of getting the program running for the year, an overly-inclusive approach developed. This led to the acceptance of several children outside the designated age range, as reported in Section 5.2.1 above. As the new Co-ordinator stated in interview:

Not all the families were recruited in such a way as to meet all the criteria ... the way it came across to me, it was more a "bums on seats" sort of an exercise at that point ... I mean, there's one family there where mum has very much higher educational qualifications than you would anticipate in a family doing this. And I think that was more an exercise of getting a family enrolled to meet the numbers required. (Co-ordinator, 2001)

In another example, a daughter of one of the Home Tutors was included, even though she was only three years old and therefore too young for HIPPY. This could have been a problem had she not been a particularly mature little girl.

Alongside the pressure to recruit parents to meet the program quota, another complication was that, in many cases, an initial assessment interview of families was not conducted by the first Co-ordinator. As the new Co-ordinator observed her Wave 2 interview, Home Tutors often completed the enrolment forms themselves with families, at the time of the first home visit of the program.

As a consequence of this, in some cases the children's cognitive developmental level had not been properly considered, nor had thought been given to the appropriateness of an intervention such as HIPPY, with its requirement of substantial commitment. It was evident from interviews with parents and staff concerning particular children that those with severe developmental delay, or, on the other hand, children who were particularly bright, were found to struggle with HIPPY in different ways. The level of difficulty was too great to be useful for some children,

while others found the work boring and repetitive because they grasped it so quickly. To preserve confidentiality, detailed narrative concerning these difficulties cannot be presented, but the evidence summarised here did clearly indicate that, while HIPPY is flexible and responsive to individual needs to some extent, in order to maintain program fidelity there must be some limit.

6.2.3 Commencing program delivery

The absence of an effective Co-ordinator meant that program implementation did not proceed within the timeframe intended by the standard program. Delays occurred in several areas, most notably in the recruitment and enrolment of families, and then in the commencement of the program proper. According to the CEO, one of the reasons for the delayed start of the program was a lack of clear information about the number of families that had in fact been recruited:

We were receiving different messages about how many families had been recruited. And I think it was the end of March, or April, we were told 28 families had been recruited, and during one of the absences of the Co-ordinator we found out that the numbers of files were only 19, so we couldn't equate the 19 with the 28 children. So we sought clarification from the Home Tutors. (CEO, 2001).

Further, the materials for commencing the work were not assembled in a timely way. As one of the Home Tutors observed, the delays and uncertainty were not only frustrating for staff, but they made it difficult to establish firm connections with parents:

At the start of the year it just started off slow. We didn't have a definite date it was going to start - we were just waiting for the work to come, you know. I don't know who organised it or whatever, but if that had been organised a bit better we could have said to people "We're going to start at such and such a date" ... Well, you've got families and you're ringing them up and saying "We'll start at the end of the month", and you ring them up at the end of the month and say "Oh well we haven't got the work yet". And you know and yeah - that was a bit off-putting. (Home Tutor 5, 2001)

6.2.4 Training, supervision, and support of Home Tutors

6.2.4.1 Need for initial preparation and supervision

A further consequence of the lack of organisation during the initial phase was that Home Tutors were commonly provided with very little background information about their families before going out for their first home visits. The Co-ordinator noted:

They were thrown in the deep end. They weren't given any background information. In fact some of them had to fill out enrolment forms for the families that they were enrolling. So they weren't given any background information on any of the families that sometimes can be quite pertinent for them to know ... There was one family ... You know, just to inform the Home Tutors - "This parent has had a child that died" - you know - "and she will disclose it to you. How do you feel about that, and how do you feel you'll cope with that?". (Co-ordinator, 2003)

This lack of information prior to the first home visit, combined with the absence of adequate training and supervision, had great potential for disaster, as observed by the Co-ordinator:

I know when I took over there was one [family] that [Home Tutor] was working with that she felt really uncomfortable about ... The parent disclosed about childhood - about sexual abuse that had occurred within the family history. And [Home Tutor] felt really uncomfortable about that. And I think that if she had've been ... if that had've been spoken about prior to her engaging with the family, a) a decision could have been made that she's not comfortable and another Home Tutor appointed, or b) it actually could have been worked through, because she was actually a housewife who had at the time five children ... um ... who had had no training, who was suddenly sitting there being exposed to a disclosure ... and didn't want to say the wrong thing. So, um, I think the Home Tutors did feel like they were not, I think, not supported. (Co-ordinator, 2003)

The particular Home Tutor mentioned above reported herself that the disclosure of abuse had been very difficult to respond to, given her lack of preparation and experience:

The Co-ordinator at the time actually knew this family, so she did have all the information about that issue with the family, about the daughter having been abused. And if I had've been prepared for that, I wouldn't have reacted like that - like I wouldn't have been in so much shock if I had some background, you know. (Home Tutor 3, 2001)

6.2.4.2 Support among the Home Tutors

Despite the absence of a Co-ordinator for much of the first year, the Home Tutors provided support to each other, and also knew they could call on the support of other Glastonbury staff members, including the CEO, if necessary. As one Home Tutor recalled in her Wave 1 interview:

Just us working as a group on a weekly basis, we get together, we go through the program. But also we do, we just chat amongst ourselves, and if someone has got something that has come up, or a problem or some sort of scenario that they need looked at - so we, the first three of us, kind of tell them what to expect, or how to go about something, or which way to tackle things ... We work through that with them. And you need to also offload onto somebody and you can't really tell anyone else because it's all personal stuff ... But [HIPPY's] become more than we thought it was going to be as well. It certainly has, and even [CEO] has said to us "How are you going? How are you managing? Do you need counselling yourself sometimes?" ... We also know that we can go to Glastonbury, and say, look we need some clarification, we need some help, some counselling or something like that. (Home Tutor 1, 2001)

Once the new Co-ordinator commenced, the situation began to change. She reported (2001) that a priority task was to institute regular team meetings and supervision with the Home Tutors, as well as to get to know the families involved.

6.2.4.3 Management of emotional investment in HIPPY by staff

There was a strong philosophy often expressed by staff in interviews that HIPPY was a great boon to families. This attitude came from a compassionate stance whereby the deprivation and disadvantage of families was acknowledged, and staff wanted to provide something of benefit. It also clearly contributed to a strong sense of responsibility on the part of staff to keep families engaged with HIPPY.

However, it appeared that this sense of responsibility could, at times, become a liability. Consequently, feelings of failure were reported by agency staff if a parent was unable to sustain involvement. One Home Tutor explained her sense of responsibility:

We make that many phone calls to them, we drive around a few times, when we're only paid once, sort of thing. But all these extras you take on board because you want to do this for them, and then at the drop of a hat, they can

just say, "No, I'm not continuing". And that's when we need the moral support and motivation from the group, to pick up and say "We know it's not your fault". But we still feel bad. You've invested time. (Home Tutor 1, 2001)

It often seemed that staff felt personally responsible for keeping "their" families engaged with the program, and inadequate if this could not be done. The language around this issue was particularly revealing, with phrases such as "dropped out" and "threatening to leave" being common in staff members' discussion of the implementation of HIPPY. The strong feeling of responsibility was present despite the many difficult life circumstances that the HIPPY parents had to contend with, which meant there was often an ongoing struggle to raise and provide for their families, circumstances in which HIPPY commitments may understandably have to be relegated to a low priority.

The Co-ordinator spoke about her sense that management of the allocation of families to Home Tutors was a sensitive matter, which required careful consideration, for example, to match personalities:

I think that they felt the impact of having a loss [of a family] ... One Home Tutor lost two or three, um - they each only started with five - so if you lost two or three they themselves felt "Oh I'm not really a Home Tutor I've only got two" ... Um and I think for the Home Tutors themselves, to feel part of the program, it's important that they're seeing, I mean they're doing all this training and then they're going out and seeing three families. It just doesn't, um - they're not getting a chance to practise their skills ... To feel like you are part of something, it's important to have more than three or four families. (Co-ordinator, 2003)

6.2.4.4 Maintaining boundaries by Home Tutors

A related difficulty seemed to stem from the lack of preparation and supervision during the early days of this program. This was expressed by Home Tutors in terms of the difficulty maintaining a clear distinction between their professional role as tutor and being a friend to another woman in need. As two Home Tutors put it:

We were told that when we go into their homes, our job was to do just what we were supposed to do and, obviously observe anything, but not to make it like a friend-type thing. Now, if they wanted to cross that line, which a lot of them tend to, because you see them around town ... it's not like you snob

them off or anything. But it's up to the tutor how far she wants to go with that. (Home Tutor 1, 2001)

They start to look at you as a friend sometimes, and then the work sometimes can take second place. Like you come there and they're, like, oh you know, um they're sort of interested in the work. Then it gets off track. I mean how can they concentrate if they've had, you know, other crises happen in their life? It's really hard and they just want to offload onto you ... That has been a challenge for my personality, particularly because I, yeah, I'm sort of a bit of a softy [laughing]. (Home Tutor 5, 2002)

It was clearly difficult at times for Home Tutors to maintain a professional distance from parents. It seemed that the boundary between being, on the one hand, a paraprofessional Home Tutor, and on the other, being a friend or confidante, could become a grey area, when the Home Tutors could identify with other women who were often in similar life circumstances to their own.

6.2.5 Mode of delivery of the program

Although HIPPY is designed to be delivered by a Home Tutor to a parent, and then presented by the parent to the child, this process was not always followed. In several cases it was decided by the second Co-ordinator that, in order to maintain the family's involvement in the program, it was necessary for the Home Tutor to assume the role of teacher. This was the case in one family where the mother found it impossible to engage in the tutoring role as she felt she did not have the necessary personal qualities:

Oh well [daughter] was um late back so [Home Tutor] tutored [her] for a while. Got better results with [Home Tutor] tutoring [child] than with me doing it. 'Cause I've got a very short temper. [Child] doesn't want to keep her concentration with me, but with [Home Tutor] she'll sit there ... because I'm not a very good teacher. 'Cause I'll say to [child] "You know this". And I'll be more likely to say "Well this is this [child], they're the same aren't they?" But [Home Tutor's] got a completely different way of teaching [child] which she responds to. She doesn't respond to me ... I'm not a patient person, and you see, I been told by her doctor that I'm an ADD child as well. So two ADDs don't go very well together. And I find some problems in the reading and that, 'cause I can't read properly. (Parent 18, 2002)

As the CEO reflected in his Wave 3 interview, this program delivery issue was also related to the particularly challenging group of families that the agency worked with, and the benevolent sense that it was better for families to have non-standard HIPPY than to have nothing. He explained the dilemma thus:

... We've got a number of variations in the current HIPPY group where the Home Tutor is in fact doing the lesson with the child, not the parent ... Wherever possible, there needs to be strategies in place to move it back to the parent. But if the parent suffers, which um, as some of the parents do, with a mental illness, then it becomes quite challenging and very difficult ... And then there's the dilemma of - do we drop the child out of the program, and the child therefore would miss out? Or do we keep on going with the Home Tutors providing? So that's, um, quite an issue. (CEO, 2003)

As the second Co-ordinator pointed out, in other cases there seemed to be some misunderstanding on the part of the parents about how the program would be delivered, as this had not been clearly explained to them at enrolment:

So the program wasn't explained - the components of the program weren't explained, what the program actually involved wasn't explained ... There was, I believe, some families thought that there was, you know, a Home Tutor coming to work with their child. As the term "tutor" often implies ... You know that someone's coming to tutor their child. Um, so there was quite a bit of, um, parental misconceptions about what the program initially entailed, and what they were um required to do to be a part of the program - what it entailed for them. (Co-ordinator, 2003)

6.2.6 Fortnightly parent group meetings

The Co-ordinator reported that HIPPY group meetings were held on fortnightly Wednesday mornings at a local primary school. Meetings were run in two sessions of one hour each, separated by a break for morning tea. The first part of each meeting involved the Co-ordinator and Home Tutors presenting to the mothers the HIPPY lesson for the week ahead, using role-play, and working with them to ensure they felt comfortable to engage their children in the work at home. The second part of each meeting was more specifically geared towards the mothers themselves and typically involved a guest speaker who addressed the group on topics such as nutrition, road safety, and aspects of child development. This

implementation was conducted as set out in the HIPPY Manual (Lombard et al., 1999).

An unfortunate consequence of the early difficulties in this implementation of HIPPY, as outlined above, was that the program components had not always been fully explained to families at recruitment, and it became clear that most parents did not understand the group meetings to be an integral part of the program.

This lack of interest in group meetings was disappointing to Home Tutors, and led to attempts to make the meetings as appealing and relevant as possible, seeking feedback from the mothers who did attend. As one Home Tutor put it:

So I get sometimes one, sometimes two [mothers attending group meetings], and if I'm lucky, the third one. Now, the others are pretty much the same, they've got about half a dozen families, and they get one or two ... We're going to try to see if we can get them to come in - what is it they want. We've actually worked on a few ideas on what they would like to hear, and we've asked them for suggestions, so it's not just us telling them. (Home Tutor 1, 2001)

Group attendance by mothers was reportedly very low in the first year, 2001, and this was considered to be a priority area to be addressed by the new Co-ordinator. An audit of agency records showed that, on average, only 7 parents (one quarter of the total 28 families enrolled in HIPPY) attended meetings across the two years, while the lowest attendance recorded was four. These figures included the two mothers who were also employed as Home Tutors and were therefore required to attend as part of their work. It was notable that there was a small core group of parents who consistently attended meetings, and a large number (more than 50 percent) who did not attend a single meeting.

The Co-ordinator stated in interview that when she started with HIPPY she wanted to design a program of speakers and activities, including morning teas, that she hoped would encourage more parents to attend. However, a year later she reported that the stimulating program that was provided did not bring about improved attendance overall:

A portion of the Mums [attend meetings]. Well, I have got a record since I've taken over group meetings, but I would say if we get 4 or 5 we're doing well ... And it's been like that all the way through. Quite a sizeable proportion have actually never been. It's not like they've been and found it not helpful or in some way not enjoyed it. It's actually that they've never been. (Co-ordinator, 2002)

A major impact of non-attendance at group meetings was that Home Tutors felt obliged to devote extra, often unpaid, time to their job, providing individually to parents the lessons that were regularly handled in the meetings. Where this occurred, the delivery of the program was seriously affected, as the HIPPY lessons were being imparted in a double amount, rather than spread evenly week by week.

6.3 The implications of implementation issues

The plan by Glastonbury to follow the standard program model as outlined in Lombard's (1999) Manual can be said to have been generally achieved, although with some variation. That this was possible at all, in the circumstances, was due substantially to the dedication of the Home Tutors. Variations from the standard HIPPY model, and their implications, are detailed below.

The main points of diversion from the original guidelines occurred in response to context-based contingencies flowing from difficulties early in the life of the program occasioned by protracted events surrounding the withdrawal of the first Co-ordinator. This raises the important question of program integrity, and whether the intervention that the parents ultimately received was true enough to the standard model to be considered HIPPY (Hawe, Shiell & Riley, 2004).

Overall, the circumstances leading to and surrounding the departure of the initial Co-ordinator were observed to have a serious continuing effect on many aspects of program delivery. These circumstances were the unsystematic recruitment of families to the program, poor initial communication about program components to families (especially group meetings), and the compromised training and supervision of the Home Tutors in the first year.

The lack of due process in the recruitment of families meant that enrolment tended to occur in a rather haphazard way. Pressure to meet program quotas on time meant that there was often inadequate assessment of the suitability of families for HIPPY by the first Co-ordinator, which then had further consequences in terms of how those families managed the work of HIPPY, and the emotional impact this had on them. At times, Home Tutors were required to enrol families at the first home visit, and in at least one case a lack of sensitive background information had serious consequences for the Home Tutor involved.

It became clear over time that at the outset the communication to families of what HIPPY involved was not always explicit. It seemed that some families had misunderstood the role of the Home Tutor, believing that their child would be “tutored” by someone visiting the home. The most pervasive effect of this lack of communication, however, was that most parents simply did not understand the group meetings to be an integral part of HIPPY. Attendance at group meetings was consistently low throughout the two years of the program, despite the best efforts of the second Co-ordinator to make them appealing to parents.

Finally, absence of the Co-ordinator during the early stages of HIPPY meant that the Home Tutors did not receive much-needed supervision or training for their work. Additionally, the Home Tutors team were often left to see to recruitment and administration concerns, and even to run the parent group meetings, themselves. As the CEO observed, if this group of para-professionals had been any less resourceful it is likely that HIPPY would not have stayed afloat during the early months. Despite the strong support network they established between themselves, the lack of supervision also had ongoing consequences in terms of the Home Tutors’ capacity to manage their own emotional responses to the difficult work of program implementation.

Despite these difficulties, other aspects of standard HIPPY service delivery appeared to be implemented as recommended by the internationally used Manual.

Most importantly, this included regular home visits by the Home Tutors, at which parents were instructed in the use of the HIPPY materials in a progressive way, and diligence by most parents in ensuring the children completed the activities week by week.

Within the complex context of agency program delivery to disadvantaged families, it is often a challenge to adhere strictly to program guidelines. In this particular intake of HIPPY, several divergences from the model occurred but, despite the upheavals, most of the important elements were carefully maintained by a dedicated team. The ultimate HIPPY aim of preparing children for school was kept well in mind by agency staff throughout the two years. It could therefore be argued that program integrity defined functionally, if not necessarily compositionally, was largely upheld (Hawe et al., 2004). This point is taken up further in Section 10.2.1 below.

At the same time, it can be surmised that program effects were diluted overall, across this cohort as a whole. In other words, when interpreting findings concerning outcomes it must be remembered that the observed effects are probably more limited than they would have been had the variations in implementation, documented here, not occurred.

CHAPTER SEVEN

FINDINGS: CHANGES IN CHILDREN'S

FUNCTIONING OVER TIME

In accord with the second aim of the study, addressing outcomes intended by HIPPY in terms of children's enhanced learning readiness, and in accord with the third aim to examine whether socio-emotional benefits were also evident, developmental changes in children were tracked. This chapter outlines the changes observed in children during the three years of the research project. As stated above, in the first two years children were participating in HIPPY, while the third year of the research involved post-program follow-up.

Given the contingencies and consequent limitations of the sample, and of the program implementation as described in Chapters 5 and 6 respectively, the outcome data present quite a challenge to interpretation. Some trends were evident over time, and tests of statistical significance provided some results deserving of cautious consideration.

In this chapter, qualitative data based on parents' reports of their impressions of their children's development are presented first. The quantitative data analysis relating to children's functioning then follows. Section 7.2 deals with the findings of the psychological tests relating to children's cognitive functioning, and Section 7.3 covers socio-emotional development. Longitudinal results, across the three waves, are presented for each test, as well as intra-group comparisons at each wave between the remediation group and the rest of the HIPPY children.

7.1 Impact of HIPPY on children according to parents

Across the three waves of data collection, interviews with parents yielded a great deal of information regarding the impact of HIPPY on children. Themes relating to parents' expectations about HIPPY at the program's outset are presented in Section 7.1.1.

For each area of inquiry in the interview, the emergent themes are displayed in terms of the number of parents mentioning each theme. This is followed by one or two quotations exemplifying typical comments by parents.

In all three waves of interviews, even during the first year of the program, parents were able to identify many ways in which they believed HIPPY was of benefit to their children. Emergent themes are presented in Section 7.1.2.

While the next two sections focus on the positive aspects of HIPPY, difficulties that were encountered by parents are discussed separately, in Chapter Nine below.

7.1.1 Parents' expectations at the program's outset

In the first wave of process evaluation interviews in 2001, parents were asked why they had enrolled their children in HIPPY, and what were they hoping to gain through their participation. A summary of responses, constructed using the thematic content analysis described in Section 4.5.1 above, is presented in Table 4.

Table 4

Parents' expectations of HIPPY at the program's outset in Wave 1

Emergent theme	Number of parents reporting theme
<i>Total number of parents interviewed</i>	24
Help child to get ready for school	10
Help child with early learning	9
Help child "catch up" to peers	7
Assist in management of child's diagnosis	6
Provide some special one-on-one time with Mum	5
Help with child's development	5
Help child become familiar and confident with schoolwork	4
Provide a structured joint activity for mother and child	4
Teach child to concentrate	3
Give child something to occupy him/herself	2
Teach child to focus and apply herself	1

Table 4 indicates the most common reasons stated by parents for enrolling in HIPPY were appropriately related to enhancing school readiness, and giving their child a "head start" with learning. Two parents stated:

Extra learning – yeah, because I never had that sort of stuff when I went to school, and I know I found it hard. So I'd like to have that information for her before she starts. (Parent 13, 2001)

Well, I remember reading about the Head Start program in America and how successful that was. And he was in, was it three-year-old kinder? No it was four-year-old kinder down at Norlane West and they had a flier about HIPPY. So I just went from there. And again because we're in a low socioeconomic bracket, I thought "Well, any opportunity for him to advance - I've gotta take it", you know. And to give him that head start. (Parent 17, 2002)

Another notable theme, mentioned in seven interviews, was the idea that HIPPY may provide a chance to catch up, or some remediation for children who were already showing signs of struggling with learning or language skills. One mother with two children in the program reported:

Oh, I don't think that I've really got any [expectations], just to have it there to help the boys cope with their first year at school. Because they are that little bit behind and yeah, I'm hoping it will kind of bring them up to scratch. (Parent 9, 2001)

Additionally, six mothers hoped that the program would be helpful in addressing a diagnosis relating to developmental problems (such as ADHD or Learning Difficulties). Relevant comments here were:

Well [child] has ADHD, so he has concentration problems to start with. And I just thought if it's going to help him along that, give him that bit of a head start at school to learn, well you've got to do this and we've got this time to do it in. I thought that's got to help him, you know, that's good grounding for school. 'Cause otherwise he's just - he'll go off the planet - he'll do his own thing if you don't sort of get him focused on something and get him excited about it. (Parent 5, 2001)

Well [child] has been diagnosed with Autism, which is a mild intellectual disability. So he's pretty clumsy and stuff like that. So just more to hone down those skills, and get him prepared for school next year. (Parent 23, 2001)

At times it seemed that some parents may have hoped for more than HIPPY was able to deliver, as one mother stated:

Well, because of his behaviour problems what we've been having with him, I thought it might break it, I thought it was, but it looks like he's getting worse at the moment. (Parent 10, 2001)

Another reason for enrolling, raised by five parents, was the parents' hope that HIPPY would provide some way for the mother and child to have some special one-to-one time together. For example:

Oh, I'm not sure, um, a bit of confidence and a bit of time just with me. Because we, with having five children it gets a bit, quite, you know hard to find time. Just to spend time with my child ... was probably the main goal. (Parent 2, 2001)

To give her the time with mum, a special time with mum, that we were doing something together ... when you're doing homework with them you weren't

pushing her away or saying “Hang on buddy, I’ve got to do this”. You could say, “Hang on, our time’s coming and we can do this”. And so it all blends in with our three children, not just for her, we can all work together at doing our homework sort of thing. (Parent 7, 2001)

Perhaps as a reflection of a lack of confidence in their ability to teach their children, the idea that the program would provide some kind of structured activities, or something to do together, was also mentioned by four mothers, including the following:

All I knew was [that HIPPY was] a fun program that I thought would be easy for me to do. Because, you know, she had kinder hours and nothing really else. And if she were to do something in the corner there - like there are colouring books and readers, but nothing really else I could give her, and it was very limited. (Parent 8, 2001)

More time to spend with her, I think. It was like I didn’t have time - like you sort of do things around the house, and you do this or you do that, but with HIPPY you put in that time that’s just for me and her. (Parent 4, 2001)

Four mothers said they expected HIPPY to familiarise their children with learning and academic tasks, and that this would help them to feel more comfortable and confident when they went to school. Comments were:

To give them a head start more or less. And get them used to exercises and stuff that he’ll come across at school. And just to make it familiar, so he’s not out on his own once he gets in there. (Parent 17, 2001)

Yeah, and if everything’s not hard when they walk in the door, they’re not going to be so scared, do you know what I mean? If they know some things, then they’re gonna be a bit more comfortable. (Parent 19, 2003)

7.1.2 Benefits for children as identified by parents

There was a strong conviction expressed in interviews by nearly all parents that HIPPY had had a beneficial impact on their children.

The main areas of impact emerging through the thematic content analysis of their interview transcripts are displayed in Table 5 below.

Emergent themes detailing benefits for the child perceived by parents tended to be congruent with the expectations they reported in Wave 1. It appeared that expectations of HIPPY were generally fulfilled, at least to some extent.

Table 5

Benefits of program participation for children as reported by parents

Emergent theme	Number of parents reporting theme		
	Wave 1	Wave 2	Wave 3
<i>Total number of parents interviewed</i>	23	21	17
Activities are fun / enjoyable to do	11	9	8
Child is enthusiastic about HIPPY	10	9	4
One-on-one time together for parent and child	9	6	12
HIPPY helps child in some way	1	11	6
Activities relevant for school / familiarise child	2	9	5
Child gains confidence through HIPPY	5	2	3
Child ownership / pride in HIPPY work	5	1	2
Child more able to concentrate / sit still	4	1	1
HIPPY provides something to do together	4	2	3
Positive behaviour change in child	2		
Learning is applied elsewhere by parent or child	2		
Child learns to try	1		
Parent and child share love of books			1

In many families, across all three waves of interviews (and more than half the sample at Wave 3), HIPPY was seen to provide a means for the parent and young child to have some one-on-one time together, set aside from the hectic daily activity of family life. It was often the case that parents themselves enjoyed this special time, as well as feeling that they themselves were benefiting:

You know, everybody's going this way and that way, and it's sort of like, well, we'll just sit for 10 minutes and, actually, I found it was amazing the things he'd tell me about too while sitting: "Well, did you know that we did this sort of thing at kinder", or "We did this sort of thing at school". And you'd think "Oh okay". You tend to, I think 'cause you're actually stopped for that time, you found out more what was going on. (Parent 5, 2003)

It was really good for him to um, and I think it was good for both of us because it gave us a task to do together and you'd shut the door. And 'cause his sister, she's just so clever and she never does anything wrong. And he's just the opposite ... she's such a hard act to follow ... And he really thrives on that one-on-one situation. (Parent 17, 2003)

A total of ten parents across time noted that their children had increased confidence in their abilities, and a positive approach to formal learning tasks. Parents expressed the view that this was beneficial in the school setting, where they believed children were more inclined to try something new than would have been the case without HIPPY:

I mean the plus side is teachers are giving her worksheets that we'd already done, well similar things that we'd already done. So she's lookin' at it thinkin' "Bonus, I know this! (both laughing) I know what I'm meant to be doin'." You know. (Parent 7, 2003)

[Child's] liking HIPPY. More I think it's somethin' for her to do, it's just for her, and like I say with her disabilities it's been a bit hard to get her to sit down and do something but she likes that ... More of a disability of learning and understanding than, or sort of, that sort of thing. So that's where HIPPY sorta has helped because, I mean, she never knew colours, shapes and all that. And it has brought it right up and she's understanding a lot more. I mean even the kinder's noticed with the HIPPY how much it has done, and speech and all that. So it's really good! (Parent 4, 2002)

This newfound confidence was related to another benefit noted by a few parents. Nine parents at Wave 2 reported that children were now familiar with the idea of learning, scholastic materials such as books and worksheets, sitting still and paying attention for periods of time, and other general aspects of being at school:

She sort of knows the schooling routine, or to concentrate, which is good, and even the way a book works Where you see a lot of the little ones open it from the back and upside down. (Parent 7, 2003)

Well, we seem to be closer and we got her to sit next to me which was good, to get the work done. Before she was one of the ones that she was very hard to sit down for five minutes. But just sit there and do it, I mean the time was great. Now she'll bring me a book to read. She never did that before. (Parent 4, 2003)

One parent observed that her child had developed a positive approach to schoolwork which she linked to the experience of having done HIPPY:

So it's obviously gotta be doing something. You know because, um yeah, she breezed through Prep year. And because she was doing the HIPPY as well as the prep work, so she was doing double and then Grade one, she has no trouble. They have a homework sheet sent home on a Monday, they've got all week to do it, but she does it Monday or Tuesday night, and gets it over and done with. (Parent 12, 2003)

In families where there were older children, five parents observed at Wave 1 that their HIPPY children felt “grown-up” and proud that they were able to participate in the evening homework time with their siblings. Many families referred to the HIPPY work as “homework”. Relevant comments were:

I've always been involved with all the kids at school so [child] was a bit “You're always helping them um with homework”, whatever, the time that I'd given to the school and everything. So when we did the HIPPY, that was something special just me and her could do. Which was good because you did have other things that you were doing with the other two. So that was always good. That it was something just mummy and her did, um, our time together sort of thing. (Parent 7, 2003)

Yeah it's been good, she calls it her “homework” and she likes doing her homework. (Parent 14, 2001)

The program was seen to be fun and this made it easy for parents and children to engage with the program and enjoy the work.

7.2 Assessment of cognitive development of children

As HIPPY was designed to enhance learning readiness in a general sense, several domains of outcome in cognitive functioning relating to academic achievement were explored. These were general cognitive development, early school skills, learning readiness, and academic self-esteem.

7.2.1 General cognitive development

Table 6 presents results for the *Early Screening Profiles – Cognitive / Language Profile (ESP)* for the two waves at which it was administered, namely Waves 1 and 2, while the children were enrolled in HIPPY. Results are displayed for

each subtest administered, specifically, *Verbal Concepts*, *Visual Discrimination*, and *Logical Reasoning*. The scores shown in Table 6 are standardised (\underline{m} =100, \underline{SD} =15) rather than raw scores, so have already taken into account an age-peer comparison and are directly comparable across time.

Table 6

Early Screening Profiles - Cognitive/Language Profile scores across waves

	m	SD	range	n
Verbal Concepts	t (21) = 0.97, p=0.34			
Wave 1 2001	101.61	12.25	69-133	23
Wave 2 2002	99.41	9.99	84-122	22
Visual Discrimination	t (21) = -0.32, p=0.76			
Wave 1 2001	99.74	10.74	78-122	23
Wave 2 2002	100.45	9.74	85-124	22
Logical Relations	t (21) = -0.55, p=0.59			
Wave 1 2001	103.35	9.18	81-118	23
Wave 2 2002	104.59	14.34	84-136	22

As Table 6 shows, average scores on the *ESP* tended to lie near the population norms for age (\underline{m} =100). The 64-point difference between the highest and lowest scores on *Verbal Concepts* in Wave 1 indicates the very diverse abilities of the children enrolled in the program. As can be seen from the table, for all three subtests group change over time was negligible. Paired samples t-tests showed that none of these changes over time were statistically significant.

Results of independent samples t-tests comparing the children in the remediation group with other children are shown in Table 7.

Table 7

Early Screening Profiles - Cognitive/Language Profile scores across waves for remediation group and others

	Wave 1	Wave 2
<u>n</u>		
Remediation group	11	11
Others	12	11
Verbal Concepts	\bar{t} (21) = 3.14, $p=.005^*$	\bar{t} (20) = 1.62, $p=.122$
Remediation group	94.55 (10.35)	96.09 (9.80)
Others	108.08 (10.34)	102.73 (9.46)
Visual Discrimination	\bar{t} (21) = 2.20, $p=.040^*$	\bar{t} (20) = 4.99, $p=.000^*$
Remediation group	95.00 (8.70)	93.36 (4.99)
Others	104.08 (10.90)	107.55 (7.99)
Logical Relations	\bar{t} (21) = 3.35, $p=.003^*$	\bar{t} (20) = 0.93, $p=.361$
Remediation group	97.82 (8.55)	101.73 (14.48)
Others	108.42 (6.59)	107.45 (14.29)

Standard Deviation in brackets. *Denotes statistically significant.

Comparison between the remediation group and the other children revealed that the remediation group were consistently lower in their scores. Statistically significant differences between the groups were found for all three subscales at Wave 1, but only for the *Visual Discrimination* subscale at Wave 2.

As described in Section 4.3.2.2 above, at Wave 3 the majority of children were too old for the *Early Screening Profiles* (ceiling = 6 years, 11 months), due both to the agency's inclusive policy for HIPPPY, and due to recruitment error. The *Kaufman Brief Intelligence Test (K-BIT)* was therefore administered instead as a measure of general cognitive performance, and results are reported below. Table 8 displays results for the *Vocabulary* and *Matrices* subscales of the *Kaufman Brief Intelligence Test* at Wave 3.

Table 8

Mean scores for the Kaufman Brief Intelligence Test

	<u>m</u>	SD	range	<u>n</u>
Vocabulary	94.00	15.72	71-128	18
Matrices	102.44	7.72	91-121	18

Results show that, post-program, HIPPY children performed, on average, within the average range. Once again, a wide range (57 points for *Vocabulary*) was observed between the highest and lowest score.

In Wave 3, children's standard scores in the verbal domain tended to be lower than in the previous two waves (m=94.00 compared to 101.61 and 99.41). However, although the *Vocabulary* subscale of the *K-BIT* reflects a similar construct to the *Verbal Concepts* subscale of the *ESP*, this non-significant decrement in scores may have been due to the use of a slightly different test.

Table 9 presents results of independent samples t-tests comparing the remediation group and other children on the *K-BIT*.

Table 9

Kaufman Brief Intelligence Test scores for remediation group and others

	<u>m</u>	SD	<u>n</u>
Vocabulary	<u>t</u> (16) = 1.19, <u>p</u> = .251		
Remediation group	89.13	11.93	8
Others	97.90	17.83	10
Matrices	<u>t</u> (16) = 0.95, <u>p</u> = .354		
Remediation group	100.50	5.71	8
Others	104.00	9.01	10

As shown in Table 9, in Wave 3 there were no statistically significant differences between the children who required remediation and the others on either

the *Vocabulary* or the *Matrices* subscales of the *K-BIT*. The remediation group did, however, produce lower scores on average.

7.2.2 Demonstrated early school skills

The *Who Am I?* test was used to assess beginning school skills such as early literacy and numeracy. Data relating to these early school skills are reported in Table 10 below, alongside the relevant Australian age norms provided in the *Who Am I?* Manual (de Lemos & Doig, 1999).

Table 10

Who Am I? raw scores across waves

	<u>m</u>	<u>SD</u>	range	<u>n</u>	Age norm*
Wave 1	21.8	6.17	9-32	23	24.6
Wave 2	34.1	5.78	19-42	22	35.0
Wave 3	38.4	4.34	28-43	18	39.4

*Taken from the *Who Am I?* Manual (De Lemos & Doig, 1999, p.23)

Results of the *Who Am I?* test show that, on average, children improved in their performance across the three waves. Paired samples t-tests revealed that these improvements were statistically significant between all three waves: Wave 1 to 2: $t(21) = -13.85$, $p=.000$; Wave 2 to 3: $t(17) = -15.65$, $p=.000$; Wave 1 to 3: $t(17) = -4.90$, $p=.000$. The large increase, of nearly 13 points, between Waves 1 and 2 was of particular note. The variability of scores also decreased over time.

It is important to note that the *Who Am I?* does not provide standard scores, as described in Section 4.5.2, only raw scores. Therefore, in order to obtain a more meaningful picture, raw scores were compared to the population norms provided in the test manual for the relevant age group (de Lemos & Doig, 1999). This comparison provides a benchmark for age-appropriate functioning, and gives a

sense of any relative change over time. As Table 10 shows, children in HIPPY were approximately three points below their age norm at baseline, but over time the gap closed so that, at Waves 2 and 3, they were functioning at a similar level to their age peers.

Once again, comparisons have been made both longitudinally across waves to provide an overall picture, and then within each wave between the remediation group and other children. Table 11 below presents independent samples t-tests for the remediation group and other children on the *Who Am I?* test.

Table 11

Who am I? raw scores for remediation group and others

	m	SD	n
Wave 1	t (21) = 2.69, p=.014*		
Remediation group	18.64	5.16	11
Others	24.75	5.69	12
Wave 2	t (20) = 1.97, p=.063		
Remediation group	31.82	6.16	11
Others	36.36	4.57	11
Wave 3	t (10.13) = 1.77, p=.107		
Remediation group	36.38	5.24	8
Others	40.00	2.79	10

*Denotes statistically significant

Table 11 reveals that comparisons between the remediation group and the other HIPPY children found a statistically significant difference between the two groups at Wave 1, but not at Waves 2 and 3. In other words, the difference in scores between the two groups decreased over time, with the remediation group's scores moving closer to those of the other children.

7.2.3 Learning readiness rated by teachers

The measures focussing specifically on school skills were completed by teachers, and thus data were only available once the children were attending school ($n = 18$ in Wave 2 and $n = 16$ in Wave 3). Over the course of the study, three questionnaires were not returned by teachers, so the dataset is incomplete.

Scores for the *Gumpel Readiness Inventory* are presented Table 12 below. No data were collected in Wave 1 as children were not yet at school. The scale is divided into three subscales which reflect increasing complexity to the level of skills.

Table 12

Mean scores for The Gumpel Readiness Inventory across waves

	Wave 2	Wave 3	
n	18	15	
Low difficulty - Academic Skills			
Item 1	3.28 (0.96)	3.53 (0.64)	
Item 2	3.44 (0.86)	3.60 (0.63)	
High difficulty - Strategic Skills			
Item 3	3.00 (0.77)	3.00 (0.76)	
Item 4	2.67 (1.09)	2.67 (0.82)	
Medium difficulty – Role-governed Skills			
Item 5	3.00 (0.69)	3.20 (0.68)	
Item 6	2.94 (0.73)	3.13 (0.74)	
Total	18.33 (3.96)	19.13 (3.48)	$t(11) = 1.17, p=.266$
Standard Deviation in brackets.			

As can be seen from Table 12, all scores relating to school readiness were similar at Waves 2 and 3, with only negligible change observed. A paired samples t-test showed that the change in total scores across time was not statistically significant.

Table 13 presents results comparing the remediation group with the other HIPPY children for each of the six items of the *GRI*, and independent samples t-tests for the overall total score.

Table 13

Gumpel Readiness Inventory scores for remediation group and others

	Wave 2	Wave 3
<u>n</u>		
Remediation group	10	6
Others	8	9
Item 1 (Low Difficulty)		
Remediation group	2.90 (1.10)	3.50 (0.55)
Others	3.75 (0.46)	3.56 (0.73)
Item 2 (Low)		
Remediation group	3.10 (0.99)	3.50 (0.55)
Others	3.88 (0.35)	3.67 (0.71)
Item 3 (High)		
Remediation group	2.80 (0.79)	2.83 (0.41)
Others	3.25 (0.71)	3.11 (0.93)
Item 4 (High)		
Remediation group	2.40 (1.17)	2.67 (0.52)
Others	3.00 (0.93)	2.67 (1.00)
Item 5 (Medium)		
Remediation group	3.00 (0.67)	3.50 (0.55)
Others	3.00 (0.76)	3.00 (0.71)
Item 6 (Medium)		
Remediation group	3.00 (0.82)	3.33 (0.82)
Others	2.88 (0.64)	3.00 (0.71)
Total	$t(12.97) = 1.51, p=.155$	$t(13) = -0.18, p=.864$
Remediation group	17.20 (4.78)	19.33 (2.73)
Others	19.75 (2.12)	19.00 (4.06)

Standard Deviation in brackets.

While it was expected that the remediation group would tend to perform at a lower level on average, this was not always the case, although differences across time were very small. Independent samples t-tests showed that the groups did not

differ significantly in their total scores at either Wave 2 or 3. It is important to note that the number of participants for whom data were available was very small.

7.2.4 Academic self-esteem rated by teachers

Scores for the *Behavioral Academic Self-Esteem Scale (BASE)*, as rated by teachers, are presented in Table 14. No data were collected in Wave 1 as the children were not yet at school.

Table 14

Mean scores for the Behavioral Academic Self-Esteem Scale across waves

	Wave 2	Wave 3
<u>n</u>	16	15
Student Initiative	21.69 (5.78)	23.00 (4.33)
Social Attention	11.31 (2.24)	12.20 (1.97)
Success / Failure	7.19 (1.64)	6.87 (1.41)
Social Attraction	9.94 (2.93)	10.80 (2.73)
Self-confidence	7.50 (1.71)	8.40 (1.68)
Total	57.50 (11.68)	61.27 (10.64)

$t(9) = 1.13, p = .288$

Standard Deviation in brackets.

As can be seen in Table 14, children's academic self-esteem appeared to improve very slightly over time. The subscale which did not conform to this trend was *Success / Failure* although the decrement in scores was negligible. Once again, a paired samples t-test revealed that the change in total scores over time was not statistically significant.

Table 15 below presents results of comparisons between the remediation group and the other children for each of the two waves at which the *BASE* was administered.

Table 15

Behavioral Academic Self-Esteem mean scores for remediation group and others

	Wave 2	Wave 3
<u>n</u>		
Remediation group	10	9
Others	6	6
Student Initiative		
Remediation group	20.30 (6.22)	21.17 (2.86)
Others	24.00 (4.52)	24.22 (4.84)
Social Attention		
Remediation group	11.00 (2.63)	12.33 (1.51)
Others	11.83 (1.47)	12.11 (2.32)
Success / Failure		
Remediation group	6.90 (1.73)	6.50 (1.52)
Others	7.67 (1.51)	7.11 (1.36)
Social Attraction		
Remediation group	9.50 (3.38)	9.33 (2.34)
Others	10.67 (2.07)	11.78 (2.64)
Self-confidence		
Remediation group	7.10 (1.60)	7.67 (2.25)
Others	8.17 (1.84)	8.89 (1.05)
Total	$\bar{t} (14) = 1.21 \quad p = .245$	$\bar{t} (13) = 1.30 \quad p = .217$
Remediation group	54.80 (13.59)	57.00 (8.58)
Others	62.00 (6.16)	64.11 (11.37)

Standard Deviation in brackets.

Independent samples t-tests revealed that the differences between two groups' total scores did not reach statistical significance at either Wave 2 or 3. With the exception of *Social Attention* in Wave 3, results fell in the expected direction, with the remediation group consistently scoring lower than the other children.

7.3 Assessment of socio-emotional development of children

The *Vineland Adaptive Behavior Scale (VABS)* assessed children's daily living skills and overall socio-emotional development on the basis of parent reports. Results here provide a sense of the relative developmental disadvantage of children in the sample at the program's outset. Table 16 presents results for the *VABS* at the three time points.

Table 16

Results of the Vineland Adaptive Behavior Scale – Socialization total scores across waves

	<u>m</u>	SD	range	<u>n</u>
Wave 1	87.92	16.54	58-114	24
Wave 2	105.52	19.45	64-143	21
Wave 3	100.22	16.52	71-124	18

As Table 16 shows, results on the *Socialization* total score over time showed a very large and statistically significant increase between Waves 1 and 2 ($t(20) = -7.55$, $p=.000$), moving to just above the population age norm. The improvement in scores from baseline remained statistically significant at Wave 3 ($t(17) = -4.27$, $p=.001$) despite a small decrement. The highest scoring child did exceptionally well in Wave 2, and the lowest score in all waves was very low.

Table 17 below displays results of independent samples t-tests comparing the remediation group with the other children on the *VABS Socialization* total score.

Table 17

Results of the Vineland Adaptive Behavior Scales – Socialization total scores for remediation group and others

	<u>m</u>	SD	<u>n</u>	
Wave 1				$t(22) = 5.07, p = .000^*$
Remediation group	75.00	12.32	11	
Others	98.85	10.75	13	
Wave 2				$t(19) = 3.37, p = .003^*$
Remediation group	94.45	18.00	11	
Others	117.70	12.90	10	
Wave 3				$t(16) = 5.20, p = .000^*$
Remediation group	86.00	12.38	8	
Others	111.60	8.51	10	

* Denotes statistically significant.

As can be seen in Table 17, comparisons between the two subgroups found that the remediation group's scores were significantly lower than the others at all three waves. The magnitude of the difference between the two groups remained similar for Waves 1 and 2, but increased slightly for Wave 3.

Due to the significance of the overall group's positive results, as shown in Table 16, a more fine-grained analysis of the remediation group's scores was warranted. Paired samples t-tests were therefore conducted on the remediation group's scores across waves in order to determine whether similar gains over time were evident for these lower-functioning children. Results showed that, despite their lower scores, the pattern of change observed in the remediation group was the same as that for the overall group of children. Thus, significant improvements were noted between Waves 1 and 2 ($t(10) = -6.30, p = .000$), and maintained from Wave 1 to 3 ($t(7) = -3.26, p = .041$). Once again, the decrease in scores between Waves 2 and 3 was not found to be statistically significant.

7.4 Summary of findings concerning changes in children's functioning

In summary, findings concerning changes in children's functioning over the three years of the study suggested that involvement in HIPPY may have had beneficial effects. This was the case both for the children with developmental delays, enrolled for remediation purposes, and for the overall cohort of HIPPY children.

Parents' reports of the impact they believed HIPPY had on children were very positive and highlighted many areas of school-related functioning, including socio-emotional benefits.

In terms of the formal psychological testing, several limitations of the research make interpretation difficult. These include the small number of children involved (particularly when they are divided into the "remediation" and "other" groups), the substitution of cognitive tests at Wave 3, and the lack of standardised scores on some measures. Nevertheless, statistically significant gains were noted in terms of children's socio-emotional functioning (on the *Vineland Adaptive Behavior Scales*) and concrete early school skills (on the *Who Am I?*).

Results in other areas of cognitive development, learning readiness, and academic self-esteem were found to be within an age-appropriate range, but the pattern of change over time was less clear. However, no significant decrements in test scores were noted over the three years, showing that children were at least keeping to an upward developmental trajectory as would be expected in this age group.

CHAPTER EIGHT

PROCESS EVALUATION FINDINGS: FACILITATING FACTORS

Having documented critical aspects of both implementation and outcomes of HIPPY, the study moved to its fourth aim of exploring how the delivery of the program may have facilitated its outcomes, and what difficulties were perceived to have arisen. The present chapter reports findings in relation to perceptions of facilitating factors, and the next chapter addresses those in relation to difficulties reported by parents.

Process evaluation interviews provided a space for participants to consider what had helped them engage with HIPPY. In accord with Aim 4, information was sought during the two years of participation in the program, and then retrospectively, after the program had finished, in Wave 3. Such data are important for understanding the key elements of the program in terms of making it accessible to parents in this kind of community. The present chapter discusses factors that enabled these families to maintain their substantial commitment to HIPPY.

Table 18, on page 91 below, presents the themes that emerged from the content analysis of interview transcripts surrounding what parents believed had facilitated their involvement in HIPPY, and shows how many parents mentioned each of these emergent themes at each wave of data collection.

Table 18

Process aspects facilitating involvement in program as reported by parents

Emergent theme	Number of parents reporting theme		
	Wave 1	Wave 2	Wave 3
<i>Total number of parents interviewed</i>	23	21	17
Activities are fun / enjoyable to do	11	9	8
Can work at child's pace / flexible / adaptable	10	12	1
Parent enjoys / proud of child's learning & progress	7	14	5
Visits of Home Tutors	2	12	1
Other family members get involved too	7	5	3
> Siblings	5	5	3
> Father	3		2
Group meetings are helpful	2	7	1
> Support at meetings / social aspect	1	5	1
> Exchange of ideas / speakers	2	4	1
Structure / format good, easy to understand	5	3	1
HIPPY provides something to do together	4	2	3
Variety of activities	3	1	
Value for money	2		
Free creche at meetings	1		
Pamphlet good / eye-catching	1		
Wish child could continue in HIPPY			1

Table 18 reveals that parents reported that many elements of the program assisted their involvement. The dominant emergent themes are presented in turn below, in some detail, with accompanying relevant quotations.

8.1 Enjoyment of HIPPY activities

The main facilitating factor emphasised by parents was enjoyment of the activities by both parent and child. One of the benefits flowing from this was noted by several parents, that children experienced learning not as a chore, but as fun:

Yeah, she loves doing it. 'Cause she calls it her "homework" ... So "I want to do my homework" and everything ... Yeah if she knows [Home Tutor's] came around and dropped off new work and that, or I'll tell her that [Home Tutor's] coming around today - and she goes "Oh can we do it when I come home from school?". (Parent 12, 2002)

At times, parents were surprised and pleased at how much their children learned from HIPPY. As one observed:

Oh, because it's so hands on and it is fun, she does not realise that she's learning. And, yeah, with a lot of it, it is just fun, it's time with mum ... But then you get surprised when, I mean later down the track, she can relate it to something and I think, "Okay I thought you weren't paying attention to what we were doing but you've picked it up". I mean she had two screwdrivers the other day and they were different sizes, and she had them in front and she just said, "Which one's taller mum? Which one's smaller mum?" And they had different coloured handles too, you know, the red one was the taller one. (Parent 7, 2001)

8.2 Working at the child's own pace

The second most frequently mentioned feature which made HIPPY viable for parents was that the program was flexible, such that they could work at the child's own pace, taking account of the child's level of enthusiasm, and not insisting if the child was clearly not interested on a particular occasion. Some comments here were:

See, we're behind probably a week now. But that's not an issue, because we could just do that in one day. And that's what we usually do. Sometimes I do, all depends on her behaviour, you know. If she's not really into it, well we just pack it up, and we do it the next day. And finish up the whole week. We'd probably do half a week, or sometimes a full week in an evening. When everything's done, dishes, food. (Parent 11, 2002)

Um, it depends on what sort of mood they're in. If they're concentrating, we can get it done in probably half an hour to three-quarters of an hour, but other than that it can take over an hour to get the two of them done ... Like there was one where we had to cut up the apples and cook the apples, and I thought, "Oh god, we're going to be here forever". But we got through it eventually, and yeah, just little things like that where I have to go off and actually do things. Like normally, like, we sit at the table and we have everything in front of us and we're right ... and they get distracted then when we have to move and do other things, they sort of wander off, and yeah. (Parent 9, 2001)

This flexible approach also fitted in with family life generally, as although HIPPY is designed to be delivered on a daily basis, this was not possible for many parents in the context of their busy lives

8.3 Parents' enjoyment of children's learning

A major theme emerging in each wave of data collection indicated that sharing in the experience of their children's progress with learning was highly satisfying to parents. At Wave 2, 14 of the 23 parents initiated comment along these lines. One parent expressed a sense of her son's progress very enthusiastically at Wave 3:

Like when he was diagnosed [with Autism / Asperger's Syndrome], the reports said - like - he's not going to be able to go without trouble to school, and that ... Kick butt! Literally, you know, last year, and this year teachers have said to me "Out of the kids in the class, he's got the best reading, writing, vocabulary skills". And he just uses words phenomenal! (Parent 23, 2003)

Others sometimes noted positive comparisons with other children the same age. Pride was a feature of the following narratives:

I just love being with her and seeing her learn, that's the main thing ... She can sit there longer and concentrate ... like joining the dots, following the lines, she's loving doing that. The big and small, she wasn't too - oh, she knew what was the difference, but when they started which one was not big and not small, it started making her think a lot more. And she has really excelled in it. I'm really surprised! (Parent 3, 2001)

I'm amazed I s'pose, 'cause I read to my kids anyway - always have - but you get amazed at the kids that they don't know which end of a book's what, sort

of thing. With having the HIPPY of course [child] knew, and it also helped because you detailed one book for so long. It helps now, you find, on her, um, her comprehension of something. She can read it, and then when you say to her "Well, what was your book about?" you know, other kids'll sit there and go [shrugs]. Whereas [child'll] be able to say "Well, Bruno was having a birthday and he got cake and he got this" ... Because she's learnt ... right at the start to discuss it and talk about it. (Parent 7, 2003)

Alongside the recognition of their children's progress, some parents conveyed an underlying sense of pride in themselves for being able to take this step to help their children. This seemed to be a subtle acknowledgment of the effort that went into the decision to enrol in HIPPY and the commitment to seeing it through. As one parent put it:

Yeah, like ah, the teacher said that um nearly everything he's got established, where for the first part of Grade One it should be just, um, beginning or consolidating ... So she said ... there's only two, like, fluent readers in the class and [child's] one of them ... And I went "Ooh that's fantastic!" Pat myself on the back! (Parent 5, 2003)

Some parents were so pleased with the results of HIPPY that they were keen to enrol their younger children in the program when their time came. A one young parent commented:

I'm learning stuff myself! (laughing) ... So I can teach my younger daughter now. She's going to be doing the program. (Parent 13, 2002)

8.4 Responsiveness of program to individual needs

To some extent, HIPPY was also able to respond to the needs of individual children at different levels. The Home Tutors suggested extra activities, or just showed the parent new ways to explain something to a child who was having difficulty understanding a particular concept. One parent expanded on this:

Well, last year he had, um, difficulties with "next to" and "behind", and so we had to come up with some ways like how to explain it to him and all that ... Um [Home Tutor] came up with the idea of puttin' faces on the lollypop sticks, and then explaining to [child] that way. And he got the gift [gist] of it then. (Parent 10, 2002)

The responsiveness of the program was particularly of benefit for children enrolled in HIPPY for remediation purposes, as it allowed the mother and Home Tutor to focus attention on children's specific needs within the context of HIPPY activities.

8.5 Importance of support from Home Tutors

The parents' perception of the importance of the Home Tutors often went way beyond simply working through the program materials. A total of 15 parents across time noted that the Home Tutor was an important part of HIPPY for them, with this theme most strongly articulated in Wave 2, the second year of HIPPY (12 interviews). Several parents reported that, with all the demands they were juggling, they did not get out much, so seeing the Home Tutors in their own home was an essential feature of HIPPY:

... I love [Home Tutor] coming to me, because I find it hard to get out. But I don't go anywhere apart from grocery shopping ... So that's really handy, otherwise I would probably miss out on something like this. (Parent 11, 2002)

Because attendance at parent group meetings was not strong, as noted in Section 6.2.6 above, for most parents the visits by the Home Tutor constituted the sole or main form of exchange of HIPPY information and materials. Home visits were thus the only contact most parents had with the program, and it is likely that parents and Home Tutors spent more time working together and developed closer relationships than would otherwise have been the case. Had there been regular and frequent contact with other HIPPY parents, a wider network of social support would have been available to each family.

8.6 Involvement of other family members

An important feature noted in a total of 15 interviews was that other family members could also be involved in HIPPY. Thirteen parents across time observed

that older siblings enjoyed completing HIPPY homework with their younger brothers and sisters, and that this was not only enjoyable for the HIPPY child, but also engendered in the sibling a sense of maturity and responsibility. Relevant comments here were:

... my older children have sometimes helped out, because they wanted to, not because I actually asked them or pushed them, but because they actually want to be involved too. It was really interesting because I found throughout this that ... my older daughter, who is nearly 12, she actually works really well with them. So it's been like a whole learning experience for her too. (Parent 8, 2002)

She wants to do it all the time - it's driving me nuts [laughs]! But just basically sitting down and the whole family can be involved in the whole lot. Like if I can't do a part of it, like I've gotta go and cook tea, like someone else can take over and stuff like that. (Parent 20, 2001)

The other parent (the father in all cases) also became involved occasionally, and again this was something that was seen to be a facilitating factor. It was also often seen as a benefit, as the child may not have had this kind of interaction with the father previously. One parent spoke about how important she felt it was for her son's father to participate in the work too:

Oh yeah, [child] takes the papers, some of the work with him on the weekends [when he visits his father]. Oh yeah, I've made sure of that! Like they'll do like the first two blocks of work - like for the week's work - or three days worth of work. (Parent 23, 2001)

Similarly, one Home Tutor also reflected on the opportunity for fathers to become involved in HIPPY and the benefits of this:

Like in M's case, her dad, when I went there, like I've actually had a bit more involvement, which I haven't normally with many of the dads - he was really right into it. And when I left it made me feel really, really good. Because he was just so into it, with his daughter, and he was so proud to tell me how quickly she'd mastered this skill, or that she'd picked up different things about the book. Or you could tell that he had really concentrated with her, and like that is a real bonus. (Home Tutor 2, 2001)

8.7 Group meetings

Considering the generally small attendance at group meetings, it is very interesting to note that, in Wave 2, seven mothers reported that they found the group meetings helpful. Examples of comments were:

If I can't understand what it says to me on the paper, I click into what they're saying [in the group], how to do it, 'cause they read through it. So I can do that. (Parent 18, 2002)

'Cause sometimes if I just get the book myself sort of thing, it's hard to try and teach her the right way to do it ... If you go to the meeting, they show you how to do it first. And they show you if a child says "Oh I can't do that", the best way to show them how to do it. That's what you learn sort of there. (Parent 13, 2002)

As noted in Section 6.2.6 above, one of the new Co-ordinator's first goals had been to find some way to address the mothers' apparent misunderstanding about the importance of the group meetings and to encourage them to attend. Once the second Co-ordinator was firmly in charge of HIPPY in the second program year (Wave 2), it appears that, for the parents who did manage to attend, her efforts to make the meetings relevant and appealing were successful. The audit of group meeting records reported in Section 6.2.6 found that, although attendance was limited in numbers, there was a small group of parents who consistently attended, indicating that they found meetings of benefit. The large number of parents who never attended did not know what they were missing.

8.8 The structured nature of the program

In seven interviews across time, parents noted that one of the things they appreciated about HIPPY was its structured nature, offering something productive for them to do with their children. It seemed that, although these parents valued learning and wanted their children to get ahead with their education, they were often unsure how they could contribute to this process. Parents observed:

Um oh, I used to read to my kids and play with 'em anyway. So it happened anyway. But you're doing an actually structured thing where they're learning, where I didn't do that type of stuff before. We'd play games and read books and things, but with the HIPPY they're more learning, which is good. Um, but I suppose some parents that wouldn't spend time with their children that's good for them 'cause it's actually a set time that they're doin'. So, yeah, it brings you closer together. You're talking, communication's there. See - like I still put her to bed and read a couple of books to her and stuff like that. (Parent 12, 2003)

But I mean, if they still had a thing for Grade One ... I'd have her to do it now. 'Cause to bring her up to where she was, if they didn't do HIPPY, I don't think I could have done what, you know, not the work like that. I mean you can sit there, read a book, do whatever, but not the work and spend the time as what they do. And she learnt, yeah, I'd say she learnt a lot from doing that. If she hadn't, I reckon she would have been further delayed again. (Parent 4, 2003)

8.9 Summary of facilitating factors

Of the many factors enabling successful engagement with HIPPY identified by parents in interviews, foremost was the sense that the HIPPY activities were enjoyable for both parents and children, a key aim of Lombard's program design (Lombard, 1994).

The responsiveness of the program to individual families' situations was also a strength. This seemed to be particularly important in the context of children with developmental delays, children who were just learning school-related behaviour such as sitting still to listen to another, or concentrating for a period of time, and families with very busy, often unpredictable, schedules. The highly structured nature of the program also meant that HIPPY was manageable for parents lacking confidence in their ability to help their children learn, and allowed other family members to assist with the work. The balance between having enough structure to make HIPPY clear and straightforward, and, simultaneously, enough flexibility to make it practical, appears to have been attained.

The support of the Home Tutors' visits, frequently reported in interviews, was clearly a crucial factor in many cases, and it seems that the care and dedication of these five para-professionals was very much appreciated by parents. Additionally,

although the importance of group meetings was not fully grasped by all parents, those who did attend reportedly valued this aspect of HIPPY.

Thus, despite the many challenges of this implementation of HIPPY, it appears that the agency succeeded in terms of providing a service that was accessible and appropriate for its target group of disadvantaged families.

While the overall response from parents was highly positive, some difficulties were encountered, and these are reported in the next chapter, along with suggestions for improvement.

CHAPTER NINE

PROCESS EVALUATION FINDINGS: DIFFICULTIES AND SUGGESTIONS FOR IMPROVEMENT

In pursuing Aim 4 of the study, the process evaluation findings presented in Chapter 8 focussed on the facilitating factors of HIPPY, as perceived by parents and staff. However, inhibiting factors encountered by participants can provide powerful indications of the ways in which program implementation can be improved.

Difficulties were the subject of the second part of Aim 4.

Intra-agency difficulties have been dealt with in Chapter 6 on Program Implementation. Relevant points there included staff reports of the impact of staffing changes over time, anomalies in the recruitment of families, initial delays in commencement, and challenges resulting from inadequate preparation of Home Tutors.

This chapter recounts, firstly, difficulties reported by the parents in their experience of HIPPY, and secondly, suggestions for improvement made by both parents and HIPPY staff.

9.1 Difficulties identified by parents

Thematic content analysis was conducted of the interview material that centred around narrative responses to the open question “Was there anything in HIPPY that you thought didn’t work so well?”.

Table 19 below presents a summary of the emergent themes, ordered in terms of their predominance at the three waves of data collection with parents.

Table 19

Difficulties encountered with the program as reported by parents

Emergent theme	Number of parents reporting theme		
	Wave 1	Wave 2	Wave 3
<i>Total number of parents interviewed</i>	<i>23</i>	<i>21</i>	<i>17</i>
American language not appropriate / confusing	5	9	
Child lacks motivation once at school		8	3
Hard to manage time commitment	5	5	2
<i>Activities were:</i> Too hard for child	3	1	1
Too easy for child	1	3	1
Too long	1		1
Too repetitive	2	1	1
Not interesting	1	2	1
Confusing	1	1	
Mother needs to adapt some activities for child	3		
Lack of notice and info about group meetings	2		
Meetings not attended well (disappointing)	2		
Group Meetings too repetitive	1	2	
Group Meeting time not convenient	1	1	
Parent lacks patience to work with child	1	1	
Not enough maths		1	1
Child or parent too shy for role-play technique	1	1	
Too long spent with Home Tutor	1		
Confusion about writing upper / lower case letters	1		
Child expects to be centre of attention now			1

Table 19 indicates that parents identified a wide and varying range of aspects of HIPPY that they perceived as factors inhibiting its optimally effective delivery. The most prominent challenges reported were the use of American language materials in

this Australian context, and the difficulty for some children in maintaining motivation in the second year, after they had begun school. Following this were challenges in terms of time management issues for parents, and varied concerns about the level of difficulty of the HIPPY activities.

In addition, single mentions of other difficulties were assorted, several of these indicating issues relating to group meetings and others relating to parents' and children's capacity to carry out HIPPY tasks.

The following sections focus upon the most prominent difficulties highlighted by parents. Each emergent theme displayed in Table 19 is discussed below in turn.

9.1.1 American language of materials

The most frequently reported difficulty for parents (a total of 5 at Wave 1 and 9 at Wave 2) was the observation that American vocabulary in the HIPPY materials was a hindrance. Parents usually felt the need to substitute equivalent Australian words. Some specific words noted in interviews were "pushchair" or "carriage" where Australians would use "pram", "rooting" for digging (by pigs), and "doing the laundry" where Australians would say "doing the washing". For example, one parent reported:

Yeah [child's] been "What's a closet?" And I said "Oh sorry, cupboard". You know things like that which, and I know a few other people have sorta had the same thing, and when you go to the meetings and they say "Oh just change it to this", just you know. Cause it's not words we use a lot over here. (Parent 5, 2003)

One parent indicated that she found the need to change words for her daughter to be very challenging at times:

Yeah, but you know - you're reading along, and you're reading the words to 'em and that, and then you're thinkin' "Oh!" - and then you change the word. So you're about to say the word, and then you've gotta think "Oh!", and change the words. (Parent 20, 2002)

An older and very experienced mother expressed a more pragmatic attitude:

But it's not a problem for me really [the American language], that's what I was going to say ... I mean I think they should know that a carriage is a pram. I mean they're going to come across these things again in their life ... Yeah, but I say, 'cause in a lot of the work a pram was called a carriage, and I'll say "Well that's a pram, but on this they're calling it a carriage. Okay 'cause it's a carriage as well, you know ..." And in her life she's going to come across that again, so she needs to know. So the American part of it I don't really mind. (Parent 11, 2002)

While agreeing that Australian books would be ideal, the Co-ordinator also shared the view that American words provided just another learning opportunity, but acknowledged that this might be more than some children could fathom, and more than some parents found useful:

... There's pros and cons, for and against. You know, if you use crosswalk, well, you actually extend, are extending their vocab ... So it's actually just another word for a word they already know ... So you know some parents think, well, that's appropriate to do that. Whereas other parents - it would be better if they didn't because, perhaps, their child actually doesn't know ... doesn't perhaps have that skill level to be able to use both words. (Co-ordinator, 2002)

This issue of exchanging American for Australian words also had some implications for the delivery of the program, as noted by the Co-ordinator:

... Some of it, you just change the name, but it's just in presenting it to the parents - I mean, I can do it to the Home Tutors, and you just wonder how much of what you do with the Home Tutors is repeated to the parent and then from the parent to the child. So there's always that little black box that you actually don't know, and I suppose um the less you have to change, the more likely it is that it gets there intact. And so whilst on a lot of occasions it's not difficult changes, it's um, it just leaves that little bit more to chance. (Co-ordinator, 2002)

9.1.2 Maintaining momentum in year two of HIPPY

Another frequently cited difficulty encountered by parents (8 at Wave 2 and 3 at Wave 3) was that it became hard to support their children in maintaining motivation to do HIPPY once they began school. Most children started school at the beginning of the second year of their participation in HIPPY, and this typically meant that, as

well as being tired, there was homework, or at least book reading, to be done after school hours. In the words of one parent:

So yeah.... we're just a little bit behind. But with school, they sort of, yeah - they come home and they tend to want to watch the kids' shows on the telly. And it's tea time, and it's bed time, and yeah - we're sort of squeezing it in here and there, all over the place. (Parent 12, 2002)

For one young single mother, there were times when trying to get the work done in the second year became a strain on the parent-child relationship:

Because once she was at school, it was just too much. There was too much to do. She had homework from school and HIPPY and normal schoolwork that she was doing at school. It was just sort of too much. Um, but yeah, she loved it in kindergarten, she absolutely loved it in kinder ... Yeah. It was, I mean half the time, it was just that she would fight me so much for doing it, and she would hate. Like she would say "I hate you", because I was the one saying "Come on, you've gotta do it." And yeah, it was sort of - by the end, it was sort of, you know, "How much is this worth it?", when she's hating me because I'm forcing her to do this. (Parent 15, 2003)

In an effort to keep their children engaged, some parents omitted certain activities if they knew the child did not respond well to them:

'Cause I know what she enjoys and what she doesn't enjoy. And there's some activities that I know she hates, so I'll just skip past 'em ... it depends on her. Sometimes she wants to do it all in one hit, and other times she'll just do a couple of activities, and say "I'm bored now - let's do something else". (Parent 2, 2002)

9.1.3 Time management and planning

While the issue of fitting HIPPY into daily routines became a more general concern once children started school, some parents (5 in each of Waves 1 and 2, and 2 in Wave 3) noted that finding time to do the work was always something they struggled with. This was particularly the case for working mothers, for parents in large families, or when there was a new baby in the household.

Although it was difficult in interviews to establish clear patterns of the parents' delivery of the HIPPY sessions to the child, what did emerge was that most parents

had periods when HIPPY was not done on a daily basis, but, rather, was fitted in when time, and the child's mood, permitted. Parents commented:

... So we just leave it to the weekend. And usually Saturday morning - get up and start at about 10, before his brekky's worn off. He's a big eater! He does it before brekky's worn off and lunchtime hits. Sort of get it done in-between and, yeah, not a problem. (Parent 23, 2002)

... Great difficulty at the moment [getting HIPPY done]. Um, the last two weeks have been really hard, but once I get back and things settle down again with my shifts, we generally do it on the weekends. Um, I finish early enough on the weekends to actually come home and sit down with them. We generally do one whole lot in one day. (Parent 9, 2002)

The Co-ordinator observed that some of these planning issues were addressed in group meetings, where organisational skills were actually taught. Group meetings were also seen by her as a forum where implementation issues, such as finding time once school started, could be talked through with parents and difficulties possibly prevented:

A lot of our parents are not into this, you know, planning and, you know - sort of thinking about things like routine, and when things happen, and how things happen, and being organised. (Co-ordinator, 2003)

Raising consciousness about such issues, and prompting discussion of planning and routine in meetings, was seen by the Co-ordinator as something from which parents could gain concrete assistance. It was unfortunate that so few of the parents attended the group meetings on a regular basis, to receive such support.

9.1.4 Level of difficulty of HIPPY activities

Five parents reported HIPPY activities were too hard and five reported them to be too easy for children, with others commenting upon activities being too repetitive. Some had suggestions as to how HIPPY could be modified to suit children of different abilities:

With the reading, I don't think [she learnt] much, 'cause she's, like, doing reading recovery at school now. 'Cause she's having trouble with her reading

... Maybe if they were shorter sort of books, that they could sort of read, that would be a bit better I think. (Parent 13, 2003)

... Since he was born virtually, he's had a story read to him every night. So he's getting a lot more complex books read to him than is coming through HIPPY. So I think they seem a bit babyish to him and they don't really grab his interest. (Parent 17, 2002)

Ah, it's repetitive all the time, but I suppose that's one thing that they're going to learn at school, you know, doing one task the same after each other. (Parent 3, 2001)

9.1.5 Other concerns

Two parents noted that HIPPY did not stipulate whether letters should be capitals or lower case when children were learning to write, and this caused some confusion for children once they started school:

... The only thing I found hard is the lettering. Like they're doing it in capitals and for her to look at it, she's not finding the capital B. Where there's a picture of a B, it's a little b. (Parent 4, 2002)

... She thought she was so clever because, I mean, the basic thing they learn in HIPPY is to write their name. But it was done in the capital letters and they don't - they don't like that once you get into school. It's "No, no, no" straight on 'em. And so, and she was getting annoyed, because "I can write my name!" And they're saying "Yes, but you're not doing it so." (Parent 7, 2003)

One parent believed that the intensive one-on-one nature of HIPPY had led her son to feel that he should be the centre of attention, and this caused some adjustment difficulties once he entered the group context of the classroom:

But, um, I think it's affected him adversely in one way at school. He's really clever and his general knowledge and all is right up there and, um, he's always got something interesting to say. But I think the one-on-one nature of it has made him, um, feel that his opinion counts more than everybody else's. And he'll get his opinion across, always answering questions and stuff, but he won't give the other kids the same benefit. So he's not too good at listening to other people's opinions, but he'll get his own across. (Parent 17, 2003)

As seen in Table 19, by Wave 3, post-HIPPY, parents seemed to find it harder to remember what did not work so well, as shown by the relative paucity of responses in the third column given by the 17 parents interviewed. On the other hand, they were able to identify positive features of their participation much more

easily at this time point, despite the fact that they were no longer involved in the program. It may have been the case that parents' overall positive experience of HIPPY coloured their recollection of the process of implementation, and led to some minimising of the difficulties involved once it was over.

9.2 Participant suggestions for improvement

Both staff and parents were asked, at each of the three waves of data collection, for ideas about ways that HIPPY could be improved.

Most suggestions related to the American language in the materials, which was seen by both parents and staff to be a major barrier in the Australian adaptation of HIPPY. There was also some suggestion that American cultural references should be adapted to make the story books more relevant to the Australian context. One specific example cited in interviews was a book about a Navaho Indian family celebration in which many elements, from the food to the household arrangements, were not very meaningful to the families in HIPPY Geelong.

Other suggestions related to the presentation of the curriculum materials. Several parents and Home Tutors commented on the repetitive nature of the instructions, such as reading the same page several times, or repeating detailed instructions for activities already understood in previous weeks:

.... You've read these pages like for Day 1, and then you get back up here to Day 3, and like with the children, you're doing it every day anyway. Like every day you sort of need to re-read the book to promote it to the children, but in the group meeting I don't think they needed to re-read it ... Because they've just read it - like 10 minutes earlier, we've done a couple of pages, and then they're reading the exact same pages again. (Parent 12, 2002)

... Because we've had the experience with Fitzroy which are like Somalian and Vietnamese and different nationalities, is that they have to go through every aspect of the program word for word. Whereas our parents get really ... sort of put out, if you sit there every week and say "Now, put your finger across the line, draw with your pencil" - and to tell the parents that every week they get sort of - you know. So we've got to sort of try, and you know, adapt it to each person, or else they just get offended. (Home Tutor 3, 2001)

Related to this was the point that, in this Australian-born, English-speaking group, role-playing as the predominant strategy for instructing parents in the use of materials may not have suited everyone. One parent and one child, perhaps more shy or reserved, were reportedly not comfortable with this aspect of HIPPY. One mother commented:

But, with some of the things like um “Make a noise like a duck” or something like that he’d really back off and feel silly doin’ something like that, and he didn’t like doing that. And now even with [Home Tutor], when he’s doing it with [Home Tutor], it’s the same. Again, he’s not willing to, although we role play all day. He’ll even dress himself up like an animal and it’s his idea. But if “Can you make a noise like a duck?”, it’s “Oh yeah” - [sounding bored] you know. (Parent 17, 2002)

One of the Home Tutors also noted that some parents were reluctant to engage in role-playing, particularly in the group setting:

... Sometimes even the role play, sometimes I think they don’t always want to participate in it to a ‘T’. You know, we’re meant to role play it to the letter, but a lot of my families would not. They feel more comfortable with me reading to the group. They don’t sort of want to do the whole kit and caboodle of the role play. So I don’t know, with the language barriers in the other countries, it’s probably more relevant. But as for HIPPY 2 in Geelong here, um, I’ve found with the other tutors as well, they don’t really want to. (Home Tutor 2, 2001)

It seemed that if role-play were to present a problem for some participants, Home Tutors needed to be equipped with some alternative strategies, either to help parents and children to become more comfortable with the activity, or to use instead of role-play to instruct the parents.

9.3 Summary of inhibiting factors

In summary, parents were able to identify several program elements which had caused some difficulty in their engagement with HIPPY. Most notable of these difficulties was the language of the HIPPY books, and the challenge reported by many parents in their attempts to adapt American words for their children. Other concerns related to the time commitment involved in participation, particularly once

children had started school. Parents also raised issues about the level of difficulty of the activities, reflecting the diverse range of abilities of children in the cohort.

The inhibiting factors report by parents, and outlined in this chapter, provide valuable feedback both in relation to the feasibility of HIPPY in this new Australian community context, and in terms of factors to consider in early intervention with disadvantaged families more generally.

CHAPTER TEN

DISCUSSION OF FINDINGS AND CONCLUSIONS

Overall, in this exploratory and primarily qualitative research concerning the feasibility and usefulness of implementing HIPPY in a regional Australian setting, with a non-immigrant, trans-generationally disadvantaged group of families, findings were generally positive. Specifically, findings were encouraging with respect to children's socio-emotional development and concrete school skills, but this was tempered by some challenges to program integrity. In particular, program difficulties related to adaptations in the early days of HIPPY due, predominantly, to staffing issues. Additionally, the impact of the limited attendance at parent group meetings remains unknown, but presumably meant that the program was generally received by parents in a somewhat diluted form.

Process evaluation findings, grounded in reflections of parents and staff in interviews, offered some helpful information about the contingencies of implementing HIPPY in this community, and led to suggestions of how HIPPY could be refined to be more user-friendly and effective in this setting. Outcome evaluations by parents were generally highly positive, providing a context for quantitative psychological test results that, while less pronounced, also suggested beneficial effects of HIPPY.

This chapter begins with an account of the limitations and strengths of the present study, to set the context for interpretation of the findings, and to raise several methodological issues. Consideration of how the findings relate to each of the stated aims of the research is then presented, placing them in the context of past reported research. This is followed by a discussion of the findings which draws out their implications both for future program delivery and for future research.

10.1 Limitations and strengths of the study

10.1.1 Limitations

Key methodological issues emerge which play a potentially complicating role in the interpretation of results are sampling and measurement. The aims of the study can also be seen as having limited the range of interpretation possible in an important way.

10.1.1.1 Sample issues

The relatively small sample size (ranging from 24 to 18 across waves) could be seen as the cause of statistical problems. For example, when dealing with small numbers, the results of just one child, or just a couple of test items can disproportionately affect the group mean. This was of particular concern in the subgroup comparisons between the remediation group and the other HIPPY children, where numbers were very small, ranging from 6 to 12 across the different tests. It is therefore best to approach these mean-based statistical results with caution, which is why only those reaching statistical significance are highlighted here.

Further, as noted in Section 5.2.2, the sample of children in HIPPY were very diverse in their ages (range at Wave 3 was 6.2 to 7.8 years), level of maturity, formal diagnoses and medication, and abilities at baseline. This was seen to affect the test data in the form of large variance of scores which makes understanding the mean scores difficult. For example, in the Verbal Concepts subtest in Wave 1 there was a 64-point difference between the lowest- and highest- scoring child. This can lead to difficulties when assuming that the mean is representative of any one child's ability.

As noted previously, the absence of a matched non-HIPPY control group in the present study also means that it was not possible to clearly attribute changes observed over time specifically to participation in HIPPY.

Methodological issues such as these are often difficult to avoid in the highly complex natural context of program evaluation, where it is rarely possible to obtain a neatly homogeneous research sample. In the present study, this situation was amplified by the lack of thorough assessment of suitability during recruitment of families to the program, and the agency's policy of inclusiveness of children who were experiencing developmental delay.

Future research may be able to utilise more sophisticated statistical techniques, such as power analysis relating to effect sizes, to address some of these sample issues. Due to the necessarily limited scope of the present study, and the fact that quantitative findings were not the main focus, this issue was not able to be conclusively addressed, but it is strongly recommended that it be taken up in further studies.

10.1.1.2 Measurement issues

One of the challenges in conducting longitudinal research across the pre-school years is that this is a time of such marked development that there are few brief formal psychological tests spanning the period. Ages of children in the present study ranged from a youngest of 3.9 years at Wave 1, to an oldest of 7.8 at Wave 3. As noted previously, this is not the usual practice in HIPPY (Lombard et al., 1999) and resulted, in the present case, from a recruitment process that was both overly inclusive and injudicious.

The diversity of ages meant that two different tests of general cognitive development were employed across the study, the *Early Screening Profiles (ESP)* and the *Kaufman Brief Intelligence Test (K-BIT)*. Once this issue of the projected ages of children at Wave 3 was recognised, the *K-BIT* was substituted for the *ESP* which had been used in Waves 1 and 2. This compromises interpretation of the results in this area of children's functioning because, although the tests are very similar, there may be enough variation in the domains measured to make the scores

non-equivalent. Thus it remains unclear how the substitution of a different test of vocabulary and non-verbal skills contributed to the small decline in cognitive test scores observed in Wave 3.

10.1.1.3 Limitations of the aims of the study

Perhaps the most striking limitation, not just in the present study, but in HIPPY research generally, is that the parents remain the “black box” in the intervention. In HIPPY research to date the capacity of the parent to administer the program to her child has not been comprehensively explored. Indeed, as a program designed to assist children it is difficult to conceive of how this could be ethically appropriate, logistically feasible, or scientifically valid. One possible path could be more in-depth interviews focussed on the mother herself and the actual process of doing the HIPPY work with her child. A closer study of maternal characteristics has been addressed to some extent by videotaping parent-child interaction in the Dutch research (van Tuijl & Leseman, 2004) and in a recent Australian study focusing on attachment in the HIPPY dyad (Grady, 2002). Both these studies found an enhanced parent-child relationship in HIPPY families. Another path could be direct researcher observation of parent-child HIPPY sessions in the home, such as was carried out by Gilley (2002), although observer effects would then need to be taken into consideration.

It remains to be seen how the parent’s personal qualities (such as cognitive ability) and also parenting style, and a host of contextual family variables, interact with HIPPY (Baker et al., 1998). The present study raised this issue with a quote from one mother who reported that she could not do the HIPPY work with her child because she lacked patience, and they both had been diagnosed with ADHD (see Section 6.2.5). An apparent paradox in HIPPY is that consideration of the child’s level of ability is taken into account at recruitment, but the parent’s ability, when she is the actual instrument of HIPPY, as it were, is not assessed.

10.1.2 Strengths

The present study also contained several strengths which can be seen to offset, to some degree, the limitations noted above.

10.1.2.1 Support for the research from Glastonbury

Throughout the three years of the study, the strong support for and valuing of the research endeavour within the agency was of great practical significance. The CEO, in particular, understood the importance of evaluation and liaised with the Board of Management to secure funding for the first year of data collection. Senior staff contributed to research team meetings and provided assistance, such as facilitating access to families. The present study did not appear to suffer from the research-practitioner tensions commonly reported in evaluation research (Glover, Kemp, Godfrey, Goldby, Macer, & Bond, 1999).

10.1.2.2 Representativeness of the research sample

Almost all the families (24 out of 28) enrolled in this iteration of HIPPY in Geelong gave their consent to be involved in the research. This meant that, while this particular program did suffer from some unusual circumstances that were not typical of HIPPY at Glastonbury, the research captured the experience of nearly all participants. It is possible that the four parents who did not consent to the research differed systematically from the 24 who did. Nevertheless, it seems reasonable to conclude that results were reflective of the general experience of the parents and children in HIPPY.

It is not the intention of this study to claim that the sample was representative of disadvantaged Australian-born families as a whole population. At the very least, it is likely that there is a self-selection bias relating to which parents choose to pursue an intervention such as HIPPY. Nevertheless, the information gained from this study

assists with understanding factors which may make early educational intervention more feasible in this group.

10.1.2.3 Response rate

Attrition, both from intervention programs and from research, is a very common phenomenon in working with disadvantaged families (Smith & Wells, 1990). Many HIPPY programs have reported difficulties in sustaining the involvement of families for the full two years (Adams et al., 1992; Burgon et al., 1997; Eldering & Vedder, 1996; Grady, 2002). In the present study, however, the retention rate to Wave 3 was 75 percent of the original research cohort. This was slightly higher than for the previous HIPPY program in Geelong, where the retention rate was 66 percent (Duffield, 2002), and is particularly remarkable given the extenuating circumstances of the current program. It appears that, as noted by the Co-ordinator in Section 6.2.1, the “united front” portrayed by the Home Tutors met the needs of families, and enabled most parents to remain engaged with the program for its duration.

10.1.2.4 Rich qualitative dataset

The three years of in-depth interviews with parents and staff provided an extremely rich source of information about HIPPY. In these interviews, participants’ stories conveyed the personal meaning of their involvement in HIPPY and allowed the researcher to see the program from their point of view (Riley & Hawe, 2005). Validity of the quantitative material was enhanced in terms of the degree to which children’s test results could be seen as a meaningful reflection of their participation in HIPPY. The subtleties and meaning contained in personal narratives are impossible to capture in a questionnaire, where the researcher defines the areas of interest and makes assumptions about the relative importance of some issues over others. Instead, the semi-structured conversational interviews around broad questions

positioned the parent as the holder of knowledge, and the discussion was allowed to evolve around the issues that she felt to be of importance in HIPPY.

10.1.2 5 Independence of the research

The fact that the researcher was located in an independent institution (Victoria University) meant that, while Glastonbury staff were understandably very keen to see how HIPPY was of benefit, the researcher was able to maintain an outsider's standpoint. At all times, this independence from the service delivery agency was emphasised with parents and Home Tutors, to encourage respondents to speak as honestly as they could about their experience, including any negative aspects. The aim here was to gain a balanced account of participants' experience of HIPPY, and indeed participants did appear free to voice criticisms as well as positive views.

10.2 Interpretation of the findings

Findings are now discussed in relation to the four research aims outlined in Section 3.4, and are set in the context of previous relevant research.

10.2.1 Processes of program implementation

Aim 1 was to determine whether the HIPPY program could be appropriately implemented with an Australian-born community, and with high needs families, some of whom included children with developmental delays. Results showed that it was indeed possible to deliver HIPPY in its fundamental standard form in the Corio community of Geelong, with the program being well-received by families and experienced as helpful.

The feasibility of introducing HIPPY to a new community raises important questions about the degree to which the program model has been followed, and thus

whether program integrity broadly has been maintained. To guide understanding of program integrity in this complex agency context, Hawe et al.'s "radical" development of intervention theory was employed (Hawe, Shiell & Riley, 2004). This approach distinguishes between program integrity defined "compositionally" – in terms of adherence to the various components of the intervention (e.g., materials provided, meetings), and "functionally" – in terms of "steps in the change process that the elements are purporting to facilitate or the key functions they are meant to have" (p.1562). As such, it can be said that in the present study program integrity was maintained in the functional sense. This was illustrated by the interview data as the parents were all able to identify ways in which HIPPY had helped their children, despite the fact that not all program components were fully received. The strong process evaluation component of the research also provided information on the processes employed by the intervention team in the midst of many challenges, and demonstrated that the program aims were kept constantly in mind by HIPPY staff.

The research raised several important points relating to the foundations on which the HIPPY program is based. Most salient were:

- having an available and effective Co-ordinator, particularly in the preparation and ongoing supervision of Home Tutors;
- the process of recruiting suitable families and obtaining a balance between high needs and relatively well-functioning families; and
- the ongoing promotion of group meetings as an integral part of HIPPY, from the very outset.

Although unavailable to the study, the circumstances surrounding four families' reasons for leaving HIPPY may also have provided information about hurdles to the program's feasibility. While their reasons for ceasing involvement may not have actually been program-related, these families may have been able to provide suggestions as to how HIPPY could be modified to accommodate additional life stressors that are commonly experienced in disadvantaged populations. For

example, previous research has noted that, in a highly mobile population, such as some Maori groups in New Zealand, the current format of HIPPY may not be practicable (Burgon et al., 1997). Further research may be able to be designed to inquire further into the causes of program attrition.

10.2.1.1 Parents' responses to HIPPY

The overwhelming response from parents was that they found HIPPY enjoyable, relevant and achievable as shown in Tables 4 and 5 in Section 7.1 above. Parents generally reported that the program provided a constructive activity they could do with their children, and a way for them to spend some special one-on-one time with the HIPPY child. Several parents reported a sense of achievement in the difference they had helped make to their children's learning, and, has been noted in previous research, others reported that they were learning things from HIPPY themselves (Lombard, 1994).

Parents also provided valuable reflections on the processes relating to the implementation of HIPPY. Important facilitating factors raised in interviews included the support received from the Home Tutors, the structure and relevance of the materials presented week by week, the responsiveness of the program to the pace and needs of individual children, and the very enjoyable "fun" nature of the activities involved.

Parents also reported on difficulties they encountered in the implementation of HIPPY, particularly in helping support the children's motivation in the second program year, once they had begun school, and in terms of time management and planning to get the work done. The struggles experienced by families in attempting to devote their often limited resources to such an intervention have been closely documented in previous qualitative research (Britt, 1998). Britt's program in the United States employed a Family Support Worker to assist their very high needs families with general problems, such as substance use. This enabled parents to

cope better with life stresses and to engage more easily with the intervention. In the present study, the attentive support of the Home Tutors, both practical and emotional, was frequently cited by parents as a key facilitating factor in HIPPY, which serves to highlight the level of isolation and distress commonly experienced in this population (Westheimer, 1997).

Almost all parents reported that HIPPY lesson activities were very enjoyable for them and their children, but, as was reported in the previous Geelong program (Duffield, 2002), there were individual reports of discomfort with the role-playing aspect. One confident and experienced mother reported that she found the role-play and repetitiveness of the instruction unnecessary, and one other parent reported that, in the context of HIPPY, her son would not participate in the role-playing activities, such as pretending to be a duck, even though he would happily engage in this kind of imaginative play on his own. While role-playing methods were not mentioned as problematic by any other families, these two cases suggest that this method of instruction may not suit everyone, and alternative strategies may be useful at times. As this was also documented in the previous Glastonbury report on HIPPY (Duffield, 2002), it is possible that the role-play technique is not so important for non-immigrant parents whose first language is English.

An aspect not so well received more generally in HIPPY was the need for attendance at group meetings. This problem has been reported in previous HIPPY research (Eldering & Vedder, 1996; Adams et al., 1994). On the other hand, modified Turkish HIPPY programs have augmented the group meetings with activities specifically focussed on mothers and have reported strong engagement with this aspect of the intervention (Bekman, 1990; Kagitcibasi, 1996).

It appears that this non-attendance at group meetings constituted a major problem for implementation in several ways. Lack of participation in group meetings meant that parents were not experiencing HIPPY intensively in the way it was designed. These parents also missed out on the opportunity for the social support offered by

the other HIPPY parents and Home Tutors (Lombard, 1994). Finally, parents who did not attend groups could not benefit personally from the enrichment component of the meetings. This situation also meant that Home Tutors took on a greater responsibility for providing HIPPY to parents, at times beyond their remunerated capacity. The importance of presenting the group meetings as an integral component of HIPPY is therefore a key lesson from the present study.

When asked in the interviews each year, parents were generally satisfied with HIPPY as it was implemented and did not have many suggestions for change. However, a total of 14 parents over the three waves emphasised the need to adapt the language and content of HIPPY materials to make them more “Australian”. A similar suggestion has come out of previous Australian research (Gilley, 2002; Grady, 2002) as well as the New Zealand research on HIPPY (Burgon et al., 1997). Taken together, these repeated findings indicate that familiarity with the language used in materials contributes to parents’ ability to feel comfortable and confident in their role as teacher to their child. This may be particularly the case for parents who struggle with verbal skills and literacy themselves. Another suggestion by a few parents was to reduce the repetitiveness of the materials and instructions.

10.2.1.2 Home Tutors’ responses to HIPPY

Glastonbury staff provided a great deal of information about the implementation of this program. Interviews provided insight into how, given the absence of a Co-ordinator during the early stages, the program was still able to be successfully delivered by the very resourceful Home Tutors. Interviews with the CEO and other staff consistently elicited the view that the Home Tutors were a very competent team, who were able to draw on personal strengths well beyond the brief of their role, to ensure that HIPPY got underway and kept going as they understood it should. The CEO was able to comment on how this situation had arisen, and how it was dealt

with from the management point of view. The new Co-ordinator provided information on how the team responded to contingencies that resulted from this time.

Some difficulties were noted in terms of the recruitment of especially challenging families, initial preparation of staff, and the way the HIPPY commitment was originally communicated to parents, but, with the exception of failure to attend group meetings, for the most part the standard HIPPY program was delivered as intended by the Manual (Lombard et al., 1999). The Home Tutors themselves reflected on how this had been achieved, and recalled that they felt supported by each other and by the agency, even when they had no direct supervision.

Another feature that was clearly evident in interviews with Home Tutors was their strong personal commitment to the families participating in HIPPY. This was an asset in terms of the team's sense of responsibility to get the work done, but it also raised the potential for strong investment of emotions that could become counter-productive at times of heightened stress for families. This experience of the Home Tutors has been described in evaluation research as one of "high-risk, high-stakes" personal investment (Riley & Hawe, 2005, p.231). Staff observed that when families were very needy or obviously struggling beyond what is usual, it was often difficult to remain in the Home Tutor role and to leave work behind at the end of the day. This situation has also been noted in previous HIPPY research with very challenging families (Britt, 1998; Lombard, 1994; Westheimer, 1997). Adequate support and supervision, whether from each other or the Co-ordinator, were considered by staff to be the key elements of managing the troublesome emotions often arising from their work.

10.2.2 Outcomes for children in terms of learning readiness

Aim 2 of the research was to determine whether, when delivered to such a community, the outcomes intended by HIPPY could be successfully achieved in terms of enhanced learning readiness, including with children experiencing

developmental delay. This question was explored using a combination of interview data and results of formal psychological techniques.

10.2.2.1 Learning readiness results for children overall

In interviews, most parents reported very positive views of the outcomes of participation in terms of their children's learning readiness. This applied across the life of HIPPY as well as at Wave 3 post-program. Parents were able to identify many areas in which they believed HIPPY had been of benefit to their children. These areas are illustrated by Table 5 along with the quotations presented in Section 7.1.2. Most notably they included:

- providing an enjoyable activity for parents and children to do together;
- providing some specially designated one-on-one time for parent and child;
- teaching children concrete skills such as writing their names, letters and numbers, recognising shapes and colours, and understanding stories;
- assisting with motor control activities such as cutting and pasting, colouring in;
- increasing familiarity with books and activities similar to schoolwork;
- encouraging a positive attitude towards learning and schoolwork;
- increasing children's confidence in their abilities;
- bringing a sense of pride in achievement; and
- introducing children to school-related behaviour such as sitting still and listening.

Alongside the highly positive response of most parents to the program, there were several instances where families struggled with HIPPY for various reasons. For example, as described in Section 6.2.2, in families with either very high- or low-functioning children, completing the work provided special challenges and could become stressful. While some children struggled to grasp the work of HIPPY, others found it too easy and repetitive. This dilemma has been recognised by HIPPY International in terms of the degree of structure versus flexibility in the program (Westheimer, 1997). In at least two cases in the present study, the Co-ordinator

decided that the Home Tutor should take on the role of tutoring the child, because otherwise the family would miss out on HIPPY altogether. Nevertheless, these cases were the minority and most families were able to engage successfully with the program as it was.

Another common challenge reported by parents was that children frequently lacked the energy, motivation or time to do HIPPY after a full day at school. In one case, presented in Section 8.1.2, the parent reported that getting HIPPY activities done after school was a cause of significant strain in the parent-child relationship. This may be a local issue, specific to countries such as Australia and New Zealand, as in most other countries HIPPY is completed prior to school entry.

Psychological assessment of children's cognitive development was conducted to complement understanding of the gains highlighted in the interview data. Over the three years of the research, children made strong and statistically significant progress in several areas relating to learning readiness, as measured by standard psychological techniques. In other areas, children's performance was within the average range for their age, although the pattern of change over time was less pronounced.

Results for the total group of HIPPY children indicated that significant gains in terms of learning readiness were made in the basic school skills of early literacy and numeracy as measured by the *Who Am I?* test (de Lemos & Doig, 1999). Comparison with age norms showed that, although the HIPPY cohort were below average in Wave 1, they improved across time to reach an age-appropriate level in Waves 2 and 3. As securing a matched non-HIPPY comparison group was beyond the scope of this study, it is not clear whether these improvements can be attributed solely to participation in HIPPY. Nevertheless, the improvements noted in this area were very encouraging and are consistent with other Australian research (Gilley, 2002).

More difficult to understand were other results which showed negligible change relative to population norms across time. These results were noted in the areas of general cognitive development, readiness for school, and academic self-esteem. A similar lack of change in cognitive functioning has been observed in other studies (Baker et al., 1998; van Tuijl, et al., 2001), and may be due to several factors.

For example, while clear gains were noted in terms of the more concrete early school skills measured by the *Who Am I?* it may be the case that these other areas were somewhat more removed from the content of HIPPY and so the impact of the program was not as direct. Alternatively, it is possible that HIPPY was simply not intensive enough, or did not continue long enough, for this group of children to be able to make the desired gains documented in other studies. In particular, as discussed above, a key feature of this iteration of HIPPY was the limited attendance at parent group meetings which meant that parents were not receiving the full program as originally designed. It is likely that this played a contributing role to the more inconclusive results of testing. A similar lack of consistent attendance at groups was thought to be a contributing factor in the inconclusive results reported by Baker and colleagues (1999) in their US study. This point underlines the importance of evaluation research and cautions against the assumption that once HIPPY is shown to be effective in one population, or one site, it will therefore be beneficial for all disadvantaged children (Baker et al., 1998).

Furthermore, previous research has documented delayed program effects in some areas of children's functioning such as school achievement and adjustment (Bradley & Gilkey, 2002), so it is possible that, in the present cohort, benefits in these areas may take longer than the three-year timeframe to become evident. This possibility could obviously be explored further with longer-term follow-up of children's development, but at present these neutral findings remain difficult to interpret.

Another area of functioning which yielded complex results was that of verbal skills. After initially remaining similar, results in the verbal skills area showed a small,

non-significant decline in scores in the third wave of data collection. A complicating methodological issue here was that, due to the unexpectedly wide age range of children in the sample, this final wave of data collection employed a different brief test of general cognitive functioning (*K-BIT*) from the first two waves (*ESP*). Although both these tests provide standard scores (\underline{m} =100, \underline{SD} =15) and measure similar constructs, it seems that there may have been enough difference in the areas tapped to bring about the drop in scores. For example, the *K-BIT* has a slightly greater focus on expressive vocabulary (Kaufman & Kaufman, 1990), while the *ESP* assesses both expressive and receptive skills (Harrison, 1990).

Overall, learning readiness test results on the whole either improved or remained stable, with no significant decrements noted. This means that, at the very least, children were improving on a normal developmental trajectory consistent with their age-peers. Since standard scores take into account the developmental level of children the same age, no significant change in scores from year to year indicates that the child is progressing normally. In the same way, *improvement* in standard scores over time (as observed in the socio-emotional measure discussed below in Section 10.2.3.1) indicates that children are making gains above and beyond the expected rate for their age.

In summary, the lack of significant change seen in some learning readiness areas is difficult to interpret, and it is likely that the methodological factors referred to in Section 10.1.1 are involved. Nevertheless, despite the inconclusiveness of some test results, on average HIPPY children still showed improvements in functioning appropriate to their age and developmental level from baseline to Wave 3. In other words, in most areas there were some lasting benefits for children during the three years. In other cognitive areas, such as beginning literacy and numeracy, children were seen to clearly improve across the three waves of data collection. Additionally, the parent interviews, as documented in Section 7.1.2, provided highly positive

accounts of how parents had observed their children to have improved in areas relating to school readiness.

10.2.2.2 Learning readiness results for remediation group

This study is the first to report systematic examination of the impact of HIPPY on developmentally delayed children. The eleven HIPPY children with developmental difficulties, while generally lower in their scores than the rest of the group, displayed a similar pattern of results to the overall cohort. Thus, this sub-group of children significantly improved on the *Who am I?* test of early school skills (de Lemos & Doig, 1999). In addition to these gains, the remediation group's performance on this test relative to the other children improved, which meant that the gap between the two groups closed somewhat over time. This meant that their pattern of results over time came to resemble that of the other children, who did not suffer from developmental delay, suggesting that HIPPY was of some benefit in terms of helping children “catch up” to their peers.

Other results, while consistent in direction with the overall pattern, were neutral, registering no significant changes over time.

In summary, the learning readiness outcomes for the remediation group indicate that HIPPY has worthwhile potential in a remediation context, within a certain range of developmental delay. This was particularly seen to be the case in terms of demonstrated early school skills, and in terms of parents' perceptions. Nevertheless, it remains important that judicious recruitment of families occurs, because children at both extremes of the spectrum of cognitive ability were found to struggle with HIPPY for different reasons, as noted in Section 6.2.2.

10.2.3 Outcomes for children in terms of socio-emotional development

Aim 3 of the research was to determine whether enhanced socio-emotional development was an outcome for children, again including a sub-group experiencing developmental delay.

10.2.3.1 Socio-emotional results for children overall

As reported in Section 7.3, formal assessment of children's socio-emotional development in the areas of interpersonal relationships, play and leisure time functioning, and coping skills, as measured by the *Vineland Adaptive Behavior Scale* (Sparrow, 1984), showed significant improvements relative to population norms while children were involved in HIPPY. This very large improvement (almost 20 standard points) between Waves 1 and 2 was one of the strongest results of the psychological testing. Despite a small decrease in scores after completion of the program, results continued to indicate that a significant gain in children's socio-emotional development had been sustained to Wave 3.

Further evidence of socio-emotional gains was provided in the parent interviews reported in Section 7.1.2. Comments on children's increased confidence, sense of pride in their achievement, and a positive attitude towards learning were frequent, and were directly linked to HIPPY by parents. These gains were made alongside the enhanced opportunities for parent-child communication and bonding noted by several parents. The area of socio-emotional functioning is clearly an area in which HIPPY can have a pronounced impact on children.

Long-term follow-up in the Turkish (Kagitcibasi, 1996) and Dutch (van Tuijl et al., 2004) versions of HIPPY reported similar gains made by children in terms of their socio-emotional functioning after participating in the program.

Previous Australian research (Gilley, 2002; Grady, 2002) has also reported both psychological benefits and an improvement in children's relationship with parents during HIPPY activities. Grady (2002) found that parents' perceptions of child-parent

attachment revealed an increased sense of closeness, intimacy and attunement with their children over the course of HIPPY involvement. From an attachment theory perspective (Bowlby, 1969; Dean, 1988), Grady suggested that “improved parental emotional sensitivity to their children, as facilitated by HIPPY, was associated with an improved capacity of children to have the freedom to explore their environments, and thus engage in new learning” (p.248). This explanation also has strong resonance with both Bronfenbrenner’s (1974) and Vygotsky’s (1978) theories of early learning, as described in Section 1.1.1. It is possible that a similar mechanism was at work in the present study. As noted above, these aspects of HIPPY were frequently reported by parents in their interviews. It appears that one of the key areas of HIPPY’s potential lies in its ability to enhance the parent-child relationship and the child’s emotional functioning. These benefits, in turn, can be seen to facilitate a greater capacity for learning (Bronfenbrenner, 1974).

10.2.3.2 Socio-emotional results for remediation group

The subgroup of children with developmental delays showed a similar pattern across time to the overall group, with significant improvement in socio-emotional functioning between Waves 1 and 2, followed by a slight decrease in scores for Wave 3. Once again, in this lower-functioning group of children, significant gains above baseline level were sustained even once the program had ceased.

As with the overall group of children discussed above, parent interviews also highlighted the socio-emotional benefits for children with developmental delays. For example, as noted in Section 7.1.2, one mother was very pleased to report that HIPPY had taught her daughter, with a diagnosis of Autism Spectrum Disorder, to sit next to her and enjoy story-time, something that had not been possible before. Another mother revealed that her son, with a diagnosis of ADHD, was more communicative with her when they sat down to do their HIPPY work. In other words, even in this low-functioning group of children, significant gains relating to socio-

emotional development were demonstrated in both the qualitative and quantitative data.

CHAPTER ELEVEN

DISCUSSION OF IMPLICATIONS OF THE FINDINGS

Some important implications flow from the discussion of the findings and conclusions of the present study. These are now considered in terms of implications for the future implementation of HIPPY, particularly in Australia, and in terms of implications for future research in the early intervention area.

11.1 Implications for future implementation of HIPPY in Australia

Foremost, the present study has taken forward research in this area by finding that HIPPY is a program that can be successfully implemented in an Australian-born regional community, and with high needs families with developmentally delayed children.

In reflecting upon these broad findings, it is important to remember that this study explored a particularly challenging implementation of HIPPY. It was clear that the original Co-ordinator's departure in the early days, and the surrounding circumstances, had pervasive and ongoing implications for the program at all levels.

Over and above this, the evaluation of this program provided several points for consideration in terms of future delivery of an early intervention such as HIPPY within an Australian-born regional community. Prominent issues are presented below.

Appropriate assessment and screening of families' needs and resources at the time of recruitment is essential. Disadvantaged families, by definition, usually find themselves struggling to meet the many challenges of raising their children, so it is important that their level of functioning be taken into consideration at the outset. Additionally, despite the good intentions of parents, HIPPY may not suit all children, so consideration of children's cognitive capacity at intake is essential. Similarly, a

workable balance between high needs and well-functioning families is needed, which takes account of the challenge to Home Tutors in responding to families in crisis, as well as the capacity of families to engage in a two-year commitment to the program.

Appropriate support and supervision for Home Tutors is required, and is especially critical when they are working with high needs families. In particular, this supervision should recognise the frequent challenges inherent in maintaining the personal boundary between being a paraprofessional with a job to do, and a friend to another woman in need. It is also crucial that, where possible for the agency, Home Tutors are provided with any known background information on their families before making contact, so that they can be prepared for challenging circumstances that are likely to arise.

Monitoring of the workload of the Home Tutors is important to ensure that, in their commitment to program delivery, they are appropriately remunerated for any additional hours of work. This is also important to ensure that Home Tutors are provided with adequate opportunities to practise the new skills they have learnt, and gain some sense of achievement in their work.

Strong promotion of the group meetings as an integral part of the program is needed throughout, particularly at the point of recruitment of families. It is also important to review the content of meetings over time to ensure that they are appealing to mothers who often experience social isolation, and may not have many opportunities to receive support from others in their child-rearing efforts.

Adaptation of the materials is needed to make the language and scenarios more fitting in an Australian context. This is particularly important when working with parents who may not be confident in their own literacy skills. HIPPY parents may therefore feel more comfortable with materials that are easily understood and relevant, rather than being confronted with unfamiliar words and ideas.

In consideration of the involvement of the various parties, and of program integrity, it is important to establish and document the point at which it is useful and

appropriate for the Home Tutor to take on the role of the parent in directly tutoring the child, when the parent is unable to continue in this capacity.

Finally, recognition that within the very difficult life circumstances of some families, not everyone will be able to manage the substantial commitment required by HIPPY, and it is essential to acknowledge that this does not mean the program, or staff, have failed.

As part of the action research capacity of the study, these concerns were discussed at length with both agency staff and HIPPY Australia in the ongoing process of program refinement. Therefore, at the time of writing, several issues, such as the adaptation of materials to a more Australian style, have already begun to be addressed by HIPPY Australia. Similarly, the suggestions about appropriate support and supervision of Home Tutors, more judicious recruitment of families and consideration of children's developmental level, and emphasis of the importance of parent group meetings have all been embraced by the HIPPY Co-ordinator and CEO of Glastonbury in their program development processes. The research reported in this thesis was initially commissioned by the CEO of the agency. Thus, within Glastonbury, there was a strong recognition of the need for ongoing program evaluation coupled with the commitment to integrate these findings, enabling the agency's optimal delivery of HIPPY to their specific clientele.

Although this particular implementation of HIPPY did suffer some unusual circumstances, several findings were consistent with previous evaluations of HIPPY, some of which have already been noted in relation to outcome findings in Section 9.1.2 above. One example is the attrition rate of 25% over the three-year timeframe of the research. A degree of program attrition is a consistent feature of HIPPY in the published literature. Problems with attrition rates have been noted in HIPPY programs in Holland (Eldering & Vedder, 1996), New Zealand (Barhava-Monteith et al., 1999a), and most notably, in South Africa (Adams et al., 1992). Although the retention rate in the present study compares favourably to these other studies,

attrition is a consistent feature of HIPPY, and indeed early intervention with this population more generally (Halpern, 2000; Smith & Wells, 1990). This finding suggests the need for a more considered approach to recruitment and assessment of the suitability of families, as well as clear communication at the outset about what HIPPY involves and the commitment required by families. Constant revision and refining of the program is also essential. It is surely counterproductive and undesirable for families who have to cease their participation in the program due to life pressures to be left feeling that HIPPY is one more thing they have not been able to achieve.

11.2 Implications for future research

A number of recommendations arise from the present study for the conduct of future research on HIPPY, both in Australia and internationally, and for research in the field of early educational intervention broadly.

11.2.1 The usefulness of a matched comparison group

One of the major limitations of the present study is that it is not possible to confidently attribute the observed changes in children's functioning to the HIPPY program alone, due to the absence of a matched control group. Ideally, an appropriate non-HIPPY comparison group is needed to ascertain how much of the change observed in children's functioning over time can be specifically attributed to HIPPY. Although this is not easy to achieve, it is strongly recommended for future research.

11.2.2 Complementary quantitative and qualitative methods

One key aspect of the current study that goes some way to offset the limitation of the absence of a comparison group was the extensive, longitudinal qualitative data from three waves of in-depth interviews with parents and staff. It was clear from these interviews that most parents believed, and could identify in some detail, how HIPPY had helped their children. The positive changes that parents noted in their children were corroborated by the quantitative measures of children's functioning in the areas of concrete early school skills and socio-emotional development, although less conclusively in other areas of cognitive functioning. This strongly indicates that a qualitative dimension to data collection, as used in the present study, is essential to ongoing research of HIPPY outcomes.

An additional qualitative component that was not able to be included in the present study was interviews with children about their experience of HIPPY. The present study employed parent reports only, which, although insightful, do not provide a proxy for the children's perspective. This should be considered in future research, perhaps including drawings or some reference to the HIPPY materials to assist with children's understanding of the questions. The present study suggested that children were engaged with HIPPY and would be able to complete such a task.

11.2.3 Increasing sample size

Due to the nature of the program, HIPPY research participants are likely to always be a relatively small group at any one site. This means that subgroup comparisons, such as between the developmentally delayed group and the others in the present study, are unlikely to be statistically robust. Where possible, larger numbers of participants, perhaps by pooling data from different iterations of the program, or from different sites, should be used for statistical computations to better ascertain which children are able to benefit from HIPPY and in what ways.

It must be acknowledged, however, that pooling data in such ways would bring its own difficulties in terms of having to assume that the program is delivered in comparable contexts, iterations, or sites (Hawe, Shiell, Riley & Gold, 2004). The present research has illuminated very clearly how one delivery can be rather different to what may be the norm at any one site.

11.2.4 The challenge of longitudinal measures in early childhood

Because of children's rapid development in many domains between the ages of three and seven, there are few measures of functioning that can span this period. In the present study, the only two tests which were able to be used at all three waves of the study, the *Vineland Adaptive Behavior Scales* and the *Who am I?*, both showed significant improvements in scores across time.

Additionally, tests for which standard scores have been developed, rather than relying on raw scores, allow a more meaningful interpretation of results in the context of age-peers. The limitation of the *Who am I?* in the present study is that, at this stage of its development, standardised scores are not available. To examine general cognitive development in future research, it may be possible to use one of the comprehensive cognitive tests, such as the Wechsler scales (Wechsler, 1991). However, time limitations, expense, and the requirement that a qualified Psychologist carry out test administration and scoring may be prohibitive.

11.2.5 The desirability of longer-term follow-up

It is clearly worthwhile for future HIPPY researchers to consider longer-term follow-up. There is the possibility of delayed program effects that the three-year time-frame of the current study was not able to capture. Although obtaining ongoing funding, and both tracing and maintaining the involvement of, participants are always challenges in longitudinal research, following these children further into their school

years may provide more information on the impact of HIPPY on children's academic trajectories.

11.2.6 The need for a comprehensive database

Perhaps the most immediate recommendation that arises is for agencies involved in the delivery of HIPPY to establish consistent records of the processes of implementation, such as recruitment. Such information is crucial to knowing exactly what the program involved in a particular context (Hawe, Shiell, Riley & Gold, 2004). This is important not only to assist evaluation of program integrity, but also to further illuminate outcome findings by focusing on how the complexity of relevant factors may interact to influence those outcomes.

Future evaluation research focused upon HIPPY would best be grounded in a detailed database, rigorously maintained by the service delivery agencies. Indeed, as future research may involve multi-site implementations of HIPPY, the establishment of such a database across all HIPPY sites nationally would provide an invaluable resource for ongoing evaluation research on the effectiveness of HIPPY in Australia.

11.3 Conclusion

This study of HIPPY as implemented in a regional context with trans-generationally disadvantaged Australian families revealed that the program model devised by Lombard (1994; Lombard et al., 1999) was both relevant and feasible in this community. The responses of parents, as documented in interviews, were highly positive and identified numerous gains for children. According to mothers, benefits in terms of school readiness included the provision of a constructive and enjoyable activity for the parent and child to do together, early learning of basic literacy and numeracy, improved fine motor skills, and familiarity with schoolwork and school

behaviour. Additional benefits relating to children's socio-emotional functioning included increased confidence, a sense of pride in their work, a positive approach to schoolwork, and allowing specially-designated one-on-one time for parent and child, where communication and learning could occur.

The results of formal psychological testing revealed significant improvement for some children in terms of early school skills and socio-emotional development. These results obtained for children enrolled for remediation purposes as well as for the overall HIPPY cohort. Other results were inconclusive but did demonstrate that, by Wave 3, children were functioning at an age-appropriate level.

Factors facilitating parents' participation in HIPPY were revealed to be the enjoyable and structured nature of the work, the responsiveness of the program to individual children's needs, and, most significantly, the support, both practical and emotional, of the Home Tutors.

This implementation of HIPPY experienced substantial challenges relating to the circumstances of the departure of the first Co-ordinator in the early days of the intervention. This meant that program delivery was left to the Home Tutors who competently kept the program going, but reported difficulties relating to lack of supervision and inadequate information about families. Process evaluation of these early stages of implementation highlighted its impact on areas such as injudicious recruitment, and miscommunication to families about vital program elements such as attendance at group meetings.

Parents and staff were able to identify several barriers to implementation such as the difficulty maintaining momentum in the second program year, once children had started school, and the challenges of time management in regularly getting HIPPY activities completed. Parents' suggestions for improvement of HIPPY included adapting the American content of materials, and reviewing some elements of program delivery such as repetition of instructions, and, in some cases, the emphasis on role-play.

Although this research reported several methodological limitations, notably the absence of a matched control group, the strategy of combining qualitative and quantitative approaches to data collection enabled a rich picture of the intervention to be drawn, and allowed outcome results to be contextualised within the complex natural processes of program implementation.

Perhaps the most important implication of this study is that placing this evaluation in the context of all HIPPY research to date, what is called for is a broad-ranging, multi-site study with matched controls in which both qualitative and quantitative components can be rigorously examined.

REFERENCE LIST

- Adams, I., Skuy, M., & Fridjohn, P. (1992). Effectiveness of a home-based program for pre-school children in disadvantaged South African communities. International Journal of Cognitive Education and Mediated Learning, 2, 5-16.
- Baghurst, P. A., McMichael, A. J., Wigg, N. R., Vimpani, G. P., Robertson, E. F., Roberts, R. J., & Tong, S. (1992). Environmental exposure to lead and children's intelligence at the age of seven years: The Port Pirie Cohort Study. New England Journal of Medicine, 327, 1279-1284.
- Baker, A. J. L., Piotrkowski, C. S., & Brooks-Gunn, J. (1998). The effects of the Home Instruction Program for Preschool Youngsters (HIPPY) on children's school performance at the end of the program and one year later. Early Childhood Research Quarterly, 13, 571-588.
- Baker, A. J. L., Piotrkowski, C. S., & Brooks-Gunn, J. (1999). The Home Instruction Program for Preschool Youngsters (HIPPY). The Future of Children, 9, 116-133.
- Barhava-Monteith, G., Harré, N., & Field, J. (1999a). A promising start: An evaluation of the HIPPY program in New Zealand. Early Child Development and Care, 159, 145-157.
- Barhava-Monteith, G., Harré, N., & Field, J. (1999b). HIPPY New Zealand: An evaluation overview. New Zealand Journal of Social Policy, 12, 106-121.
- Bekman, S. (1990). Alternative to the available: Home based vs. centre based programs. Early Child Development and Care, 58, 109-119.

Bowlby, J. (1969). Attachment and loss: Volume 1 Attachment (2nd Ed). New York: Basic Books.

Bradley, R. H. & Gilkey, B. (2002). The impact of the Home Instructional Program for Preschool Youngsters (HIPPY) on school performance in 3rd and 6th grades. Early Education and Development, 13, 301-311.

Britt, D. W. (1998). Reaching out and making a difference: The context of meaning in a home-based preschool program. Journal of Community Psychology, 26, 103-118.

Bronfenbrenner, U. (1990). Discovering what families do. In D.G. Blankenhorn, S. Bayme, & J. B. Elshtain (Eds.), Rebuilding the nest: A new commitment to the American family. (pp. 27-38). Milwaukee, WI: Family Service America.

Bronfenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R.H. Wozniak & K. W. Fischer (Eds.), Development in context: Acting and thinking in specific environments. (pp. 3-44). Hillsdale, NJ: Lawrence and Erlbaum Associates.

Buckner, J. C. & Cain, A. C. (1998). Prevention science research with children, adolescents, and families: Introduction. American Journal of Orthopsychiatry, 68, 508-511.

Burgon, J., Dominick, C., Duncan, D., Hodges, I., Roberts, E., & Weenik, M. (1997). Final report: Family Services Centre evaluation. Wellington, New Zealand, Ministry of Health.

Considine, G. & Zappala, G. (2002). The influence of social and economic disadvantage in the academic performance of school students in Australia. Journal of Sociology, 38, 129-148.

Coopersmith, S. & Gilberts, R. (1982). Behavioral academic self-esteem: A rating scale. Professional manual. Palo Alto, CA: Consulting Psychologists Press Inc.

de Lemos, M. & Doig, B. (1999). Who Am I? Developmental assessment manual. Melbourne: Australian Council for Educational Research.

Dean, S.H. (1988). Attachment within the family and reading disability. Unpublished PhD Thesis, University of Melbourne, Australia.

Dean, S., Leung, C., Gilley, T., & Grady, J. (2004). HIPPY implementation and research in Australia: Progress and prospect. In M. Westheimer (Ed.), Parents making a difference: International research on the Home Instruction for Parents of Preschool Youngsters (HIPPY) program. (pp. 305-322). Jerusalem: The Hebrew University of Jerusalem.

Duffield, J. (2002). HIPPY 1 evaluation report. Report prepared for Glastonbury Child and Family Services, Geelong, Australia.

Edgar, D. (2002). The secret garden: Valuing children in our community. Vernon Collins Memorial Oration, 22 October, Royal Children's Hospital, Melbourne, Australia.

Eldering, L. & Vedder, P. (1996). Culture sensitive home intervention: The Dutch HIPPY experiment. In C. Kagitçibasi (Ed.), Family and human development across cultures: A view from the other side. (pp. 231-252). New Jersey: Lawrence Erlbaum.

Gilley, T. (2002). Enhancing learning in early childhood within the family: Evaluation of practice and theory in a multi-cultural context. Unpublished PhD thesis, Victoria University, Melbourne, Australia.

Glastonbury Child and Family Services (2002). 2002 Annual General Report: 148 years. Geelong, Australia: Glastonbury Child and Family Services.

Glover, S., Kemp, I., Godfrey, C., Goldby, J. Macer, T. & Bond, L. (1999). Creating a climate for change and engagement: The Maryborough Regional College experience. In A. Ratzki, W. Keim; H. Schulz-Wensky, H. Wubbels, B. Neisser, & L. Laskey, (Eds.) Team small groups: A whole school approach to middle years. Melbourne: Hawker-Brownlow.

Goodwin, R. D., Fergusson, D. M., & Horwood, L. J. (2004). Association between anxiety disorders and substance use disorders among young people: Results of a 21-year longitudinal study. Journal of Psychiatric Research, 38, 295-304.

Grados, J. J. & Russo-Garcia, K. A. (1999). Comparison of the Kaufman Brief Intelligence Test and the Wechsler Intelligence Scale for Children - Third Edition in economically disadvantaged African American youth. Journal of Clinical Psychology, 55, 1063-1071.

Grady, J. (2002). Evaluation of a home based early childhood educational intervention: Process, cross cultural and family relationship dimensions. Unpublished Doctor of Psychology thesis, Victoria University, Melbourne, Australia.

Gumpel, T. P. (1999). Use of item response theory to develop a measure of first-grade readiness. Psychology in the Schools, 36, 285-293.

Halpern, R. (2000). Early intervention for low-income children and families. In J.P.Shonkoff & S. J. Meisels (Eds.), Handbook of early childhood intervention (2nd ed.) (pp. 361-386). Cambridge: Cambridge University Press.

Harrison, P. L. (1990). Manual for the Early Screening Profiles. Circle Pines, MN: American Guidance Service.

Hawe, P., Shiell, A., & Riley, T. (2004). Complex interventions: How "out of control" can a randomised controlled trial be? British Medical Journal, 328, 1561-1563.

Hawe, P., Shiell, A., Riley, T., & Gold, L. (2004). Methods for exploring implementation variation and local context within a cluster randomised community intervention trial. Journal of Epidemiology and Community Health, 58, 788-793.

HIPPY Australia (1999). The HIPPY Manual: Guidelines for implementation. Melbourne, Victoria: HIPPY Australia.

Kagitcibasi, C. (1996). A model of multipurpose non-formal education: The case of the Turkish early enrichment project. In C. Kagitcibasi (Ed.), Family and human development across cultures: A view from the other side. (pp. 253-268). New Jersey: Lawrence Erlbaum.

Kaufman, A. S. & Kaufman, N. L. (1990). Manual for the Kaufman Brief Intelligence Test. Circle Pines, MN: American Guidance Service.

Leonard, H., Petterson, B., Bower, C., & Sanders, R. (2003) Prevalence of intellectual disability in Western Australia. Pediatric and Perinatal Epidemiology, 17 (1), 58-67.

Leonard, H., Petterson, B., de Klerk, N. H., Zubrick, S. R., Glasson, E., Sanders, R., & Bower, C. (2005). Association of sociodemographic characteristics of children with intellectual disability in Western Australia. Social Science and Medicine, 60, 1499-1513.

Lombard, A. (1994). Success begins at home: The past, present and future of the Home Instruction Program for Preschool Youngsters. (2nd ed.) Guilford, CT: Dushkin Publishing.

Lombard, A., Levy, H., Marcoshemer, N., Gerslenfeld, M., & Ginsberg, C. (1999). Home Instruction Program for Preschool Youngsters: A handbook for HIPPY co-ordinators. Jerusalem: HIPPY International.

Marmot, M. (2004). Status syndrome: How your social standing directly affects your health and life expectancy. London: Bloomsbury.

McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. American Psychologist, 53, 185-204.

McMillan, B. W. (1992). All in the mind: Human learning and development from an ecological perspective. In J.R. Morss & T. Linzey (Eds.), Growing up: The politics of human learning. (pp. 30-45). Auckland: Longman Paul.

Miles, M. & Huberman, A. M. (1984). Qualitative data analysis. Beverly Hills: Sage Publishing.

Minichiello, V., Aroni, R., Timewell, E., & Alexander, L. (1990). In-depth interviewing: Researching people. Melbourne: Longman Cheshire.

Moussa, R. (2000). Validation of the Readiness Inventory using an Australian sample. Unpublished Psychology Honours thesis, Victoria University, Melbourne, Australia.

Oddy, W. H., Kendall, G. E., Blair, E., de Klerk, N. H., Stanley, F. J., Landau, L. I., Silburn, S., & Zubrick, S. (2003). Breast feeding and cognitive development in childhood: a prospective birth cohort study. Paediatric and Perinatal Epidemiology, 17, 81-90.

Patton, G. C., McMorris, B. J., Toumbourou, J. W., Hemphill, S. A., Donath, S., & Catalano, R. F. (2004). Puberty and the onset of substance use and abuse. Pediatrics, 114 (3), e330-e336.

- Patton, M.Q. (1980). Qualitative evaluation methods. London: Sage Publications.
- Piaget, J. (1952). The origins of intelligence in children. New York: International Universities Press.
- Piaget, J. (1977). The development of thought: Equilibrium of cognitive structures. New York: Viking Press.
- Ramey, C. T. & Ramey, S. L. (1998). Early Intervention and Early Experience. American Psychologist, 53, 109-120.
- Ramey, S. L. & Ramey, C. T. (1992). Early educational intervention with disadvantaged children - To what effect? Applied and Preventive Psychology, 1, 131-140.
- Rice, P. L. & Ezzy, D. (1999). Qualitative research methods: A health focus. Melbourne: Oxford University Press.
- Riley, T. & Hawe, P. (2005). Researching practice: The methodological case for narrative inquiry. Health Education Research, 20 (2), 226-236.
- Sawyer, M. G., Arney, F. M., Baghurst, P. A., Clark, J. J., Graetz, B. W., Kosky, R. J., Nurcombe, B., Patton, G. C., Prior, M. R., Raphael, B., Rey, J. M., Whaites, L. C., & Zubrick, S. R. (2001). The mental health of young people in Australia: Key findings from the child and adolescent component of the national survey of mental health and well-being. Australian and New Zealand Journal of Psychiatry, 35, 806-814.
- Shonkoff, J. P. (2003). From neurons to neighborhoods: Old and new challenges for developmental and behavioral pediatrics. Developmental and Behavioral Pediatrics, 24, 70-75.

Silburn, S. (2003). Guest Editorial. Improving the developmental health of Australian children. Australian E-Journal for the Advancement of Mental Health, 2, <http://auseinet.flinders.edu.au/journal/vol2iss1/Silburn.pdf>.

Smith, L. M. & Wells, W. M. (1990). Difficult to reach, maintain and help urban families in PAT: Issues, dilemmas, strategies and resolutions in parent education. St Louis: Washington University.

Sparrow, S. S., Balla, D. A., & Cicchetti, D. V. (1984). Vineland Adaptive Behavior Scales Interview Edition: Survey Form Manual. Circle Pines, MN: American Guidance Service.

van Tuijl, C., Leseman, P. P. M., & Rispen, J. (2001). Efficacy of an intensive home-based educational intervention programme for 4- to 6-year-old ethnic minority children in the Netherlands. International Journal of Behavioral Development, 25, 148-159.

van Tuijl, C. & Leseman, P. P. M. (2004). Improving mother-child interaction in low-income Turkish-Dutch families: A study of the mechanisms mediating improvements resulting from participating in a home-based preschool intervention. Infant and Child Development, 13, 323-340.

Vygotsky, L. S. (1978). Mind in society: The development of higher order psychological processes. London: Harvard University Press.

Wechsler, D. (1991). Wechsler Intelligence Scale for Children – Third Edition. San Antonio, Texas: Psychological Corporation.

Westheimer, M. (1997). Ready or not: One home-based response to the school readiness dilemma. Early Child Development and Care, 127-8, 245-257.