



**A MEDAU APPROACH TO  
PROMOTING LANGUAGE  
SKILLS IN PRE-SCHOOL  
CHILDREN WITH SLI AND  
EAL**

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## **ABSTRACT**

The negative impact of language difficulties on the ability of pre-school children with Specific Language Impairment (SLI) and English as an Additional Language (EAL) to access the curriculum and communicate effectively cannot be ignored. This study examined and evaluated the effect of a movement program based on the Medau teaching method on the curricular and communication skills of these two groups. Two settings were involved in the study. First a Language Unit attached to a state nursery and, second, a private Montessori nursery in a city.

In the first stage, two groups of children from each setting experienced a ten-session program with the participant-researcher during which time the resident Speech and Language Therapist (SLT) and Montessori practitioner received training in the implementation of Medau teaching principles. Stages two and three involved the initial groups of children receiving a further ten sessions delivered independently by these professionals. Stage four focused on the evaluation of data gathered throughout this time.

There were three main research objectives of the study.

- 1) To develop and evaluate the effectiveness of an Initial Assessment Procedure (IAP) as a diagnostic tool.**
- 2) To evaluate the effect of a movement intervention program based on the Medau teaching method on the curricular and communication skills of pre-school children with Specific Language Impairment (SLI) and English as an Additional Language (EAL).**
- 3) To evaluate the integration of Medau teaching principles into the practice of professionals in a Language Unit and Montessori Nursery.**

An action-research approach was adopted for the practical stage of the study and a triangulation procedure implemented to ensure verification of data and to minimise bias on behalf of the participant-researcher.

The Initial Assessment Procedure (IAP) was found to be sensitive to a range of competencies and supported the development and delivery of the movement program. The program had a mainly positive effect on the curricular and communication skills of the children that was supported by the nature of the qualitative evidence gathered throughout the initial delivery of the program by the participant-researcher. For the two practitioners who participated, their receptive response to the training given had a further positive effect on the learning skills of the children.

The numbers of the children taking part were small (5 in each SLI group and 10 in the Montessori groups) and the professionals participating were carefully chosen. In addition, the sessions were only one hour long and the children's natural development and experiences outside this time were unaccounted for. However, the evidence does suggest that movement skills may effectively support and assist in promoting access to the curriculum and enhancing communication skills and provide a valuable teaching aid to the training and practice of professionals.



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## **INTRODUCTION AND ORGANISATION OF THE STUDY**

The effect of language difficulties on the ability of pre-school children with Specific Language Impairment (SLI) and English as an Additional Language (EAL) to access the curriculum and communicate effectively should not be underestimated. This study aimed to measure the effect of a movement program on the curricular and communicative skills of these two target groups of children. The majority of studies that focus on the areas of difficulty these groups experience have concentrated either on clinical practice (for the SLI children), or curricular attainment (for the EAL children). The significance of this study lies in the range of skills addressed simultaneously, the teaching approach adopted to effect change and the professional development of participating practitioners.

The ten-week movement program was based on the Medau teaching method. This approach has been used previously to develop learning skills in older children and in a wide range of therapeutic settings including physiotherapy and play-therapy. The method had not been implemented in a study that focused specifically on enhancing the language skills of pre-school children who experience significant difficulties in accessing a language-based curriculum and in developing effective communication strategies. The flexibility of the Medau approach accommodated a wide range of skills and abilities and addressed the children's difficulties in a practical and supportive manner. At the heart of the teaching method lies the belief that movement may be used as an effective medium by which essential skills may be rehearsed and refined. It is not a therapeutic process nor designed as a means to effect specifically changes in levels of academic achievement but is, rather, a support mechanism through which young children may enhance the skills necessary for curriculum access and positive social interaction. The Medau approach takes the view that movement is a 'common language' for young children and is a medium in which they start from a position of strength not disability and in which the potential for learning may be maximised.

The close involvement of practitioners in the study was essential. This element of the study was designed to evaluate the effectiveness of the Medau approach to language development in two quite different settings. First, a Language Unit attached to a state-funded nursery, and second, a private Montessori nursery in a city. The resident SLT in the Language Unit, and a qualified Montessori practitioner in the nursery worked alongside the researcher throughout the initial delivery of the

movement program and subsequently delivered independently their own programs to the same groups of children.

The first three chapters of the thesis relate to the context in which the practical element of the study was delivered. Chapter One concerns language development and is critical to the understanding of the importance of the study. It concentrates on the two areas of development that are of prime concern to practitioners who interact with pre-school SLI and EAL children on a daily basis; first, the development of curricular skills and second, the refinement of communication skills. Intimately related to both areas of development is the enhancement of fundamental movement skills. Although the relationship between movement and language development is currently inconclusive, scientific research in this area is promising and recent evidence has suggested a possible neurological link.

In chapter Two the developmental context of the study is outlined. It is suggested that the importance of physicality to the overall development of young children has been undervalued by practitioners in both therapeutic and educational settings. Yet physical abilities and attributes may play a critical role in the emergence of children's 'selfhood' and are common reference points in their daily interactions.

Other movement programs are evaluated in relation to the Medau approach. The Montessori teaching method is also included in this chapter, not only because of the involvement of EAL groups in this study, but also because this approach highlights the difficulties in including a movement component in a highly structured approach to learning.

Chapter Three examines the political and educational context within which the study was conducted and the impact of the continuing debate over the nature and purpose of early-years education on the funding and future of children with SLI and EAL. This debate not only affects funding for these groups but also the training and mentoring of practitioners. This chapter also contrasts the educational provision in England and Wales with that available in other countries. The comparison highlights the holistic approach to learning adopted by a range of European countries and the fierce debate this engenders between professionals in England and Wales. Central to this debate is the issue of assessment. The purpose and nature of assessment procedures are examined in this chapter and the ways in which they impact on the learning opportunities of young children with SLI and EAL.

The development and delivery of the Initial Assessment Procedure (IAP) that was specifically designed for the purpose of the study is highlighted in Chapter Four that fully explains the research methods used to gather data. The two settings from which the participating children were chosen are described and the mentoring process experienced by the participating practitioners is examined. In the Appendices may be reviewed the methods of data collection, the Initial Assessment Procedure (IAP) and the ten session plans of the initial movement program. Also included is a personal statement of the researchers' involvement in the study.

Chapter Five discusses the results of the pre-intervention stage of the study. Chapters Six and Seven examine data from the intervention stage of the study. The study concludes with chapter Eight in which the results of the study are examined in the light of the primary research question: **Can a movement program based on the Medau teaching method promote language skills in pre-school children with SLI and EAL?**

# **CHAPTER 1**

## **The Language context of the study**



# THE LANGUAGE CONTEXT OF THE STUDY

## 1.0 Introduction

Tomblin et al. (1997) suggest that 7.4 per cent of five year olds may experience significant difficulty in relation to speech and language development and Lahey's (1988) study found pre-school prevalence rates in this area are of 3 per cent - 15 per cent. Burden et al. (1996) found that nearly 7 per cent of three year olds in one English county experienced language difficulties and, furthermore, 554 pre-school children with *diagnosed* problems were known to be attending community clinics, specialist units attached to nurseries, or were awaiting therapy.

Although Bishop and Edmundson (1987) suggest that 40 per cent of all children who experience language difficulties at 4 years of age have resolved these by 5.5 years, Weiner (1985) has found that the remaining 60 per cent continue to exhibit difficulties at 10 years and, indeed, experience a high level of linguistic, social and educational impairment for a significant period of time after the initial diagnosis (Johnson et al. 1999). In their nationwide report on the provision for speech and language therapy for children in England and Wales, Law et al. (2000) assessed the annual increase in the need for therapy to be as high as 5 per cent.

For young children who have EAL the difficulties they experience accessing the curriculum or engaging in social interaction may not be as profound or long-lasting as those children with diagnosed clinical problems, but a significant minority of 7 per cent will begin their schooling without an adequate grasp of the language in which the curriculum is delivered. Pre-school practitioners delivering a mainstream curriculum are required to prepare the children in their care for the next stage of schooling. The prevalence of children with language difficulties who attend mainstream schools and the percentage of those with EAL make it critically important that the wider educational needs of both groups are assessed and acknowledged. Law et al. (2000) make clear that adequate provision should be made for children with language difficulties to ensure their successful access to the curriculum and positive social interaction.



It is therefore imperative to evaluate the language, developmental and educational background of the study. Access to a language based curriculum requires the development of specific physical skills and it is important that the enhancement of these skills is acknowledged to have long-term consequences on the level of achievement experienced by pre-school children with SLI and EAL in educational settings.

Alphabetic scripts, by definition, consist of fewer than thirty symbols that are essentially abstract and unrelated to specific pictures or images. Each symbol or letter represents a single sound and meaning is clarified only when they are written sequentially. Shlain (1998) suggests that the ability to access an alphabetic, linear script has a profound and fundamental effect on the individual;

‘A medium of communication is not merely a passive conduit for the transmission of information but rather an active force in creating new social patterns and new perceptual realities. A person who is literate has a different ‘world view’ than one who receives information exclusively through oral communication. The alphabet, independent of the spoken language it transcribes or the information it makes available, has its own intrinsic impacts.’  
(Shlain, 1998, p2)

In order to access this form of script it is suggested that certain core physical competencies need to be acquired before the process of becoming literate may proceed. Intimately related to this process is the early development of the human brain.

## **1.1 Brain development**

The two sides of the human brain, although seemingly symmetrical are functionally different. Of the twin hemispheres, the right (or gestalt) side develops in utero well before the formation of the left (or logic) side begins (Shlain 1998, Ornstein 1997). The right hemisphere relates closely to earlier and more ‘animalistic’ forms of communication such as crying, gesture and touch and the ‘emotional states’ of this hemisphere are manifested in ‘unconscious responses’ such as blushing and fidgeting. This hemisphere, more so than the left, generates ‘feeling states’ such as love, humour and aesthetic appreciation, all of which are non-logical and ‘defy the rules of conventional reasoning’ (Shlain 1998 p7). The left hemisphere is concerned with the conventional features of language: choice of words, syntax and literal meaning. The right hemisphere, in contrast, governs the forms of speech and is able to interpret inflection, nuance, facial expression and gesture while simultaneously registering such physical responses as pupil

size and hand actions (Shlain 1998, Ornstein 1997). The right hemisphere possesses a greater facility than the left to perceive space and manage emotions, images and rhythm (Williams 1983). The right hemisphere exhibits a growth spurt between 4 -7 years, while the left hemisphere does not experience this until 7 - 9 years (Hannaford 1995). The left hemisphere's primary functions are opposite yet complementary to those of the right. The right hemisphere is responsible for 'being', the left with 'doing' (Ornstein 1997). The left hemisphere is responsible for speech, letters, sentences, syntax, semantics and sequential thinking. Essential to the understanding of speech is the ability to analyse and reduce the components of sentences into their separate parts. It is dependent upon the knowledge of linear progression and requires the ability to process information without the support of images (Shlain 1998). The relationship between sequential thinking and abstract thought is realised in the concept of linear time and the language of numbers. Although the ability to count starts in the visual, spatial, right hemisphere, the permutation of large numbers is the domain of the left (Shlain 1998). Complete hemispheric specialisation is achieved between 9-12 years of age (Hannaford 1995).

#### Alphabetic script - pictographic script. Relationship to hemispheric functioning

An awareness of time and sequence is not only fundamental to the understanding of number, but is also a vital component in the comprehension of written language. Written alphabetic script may only be understood through the extraction of meaning from discrete abstract symbols laid out in a linear sequence. Linearity, sequence, abstraction and analysis are all properties that relate to language, logic, causality and computation. These, in turn, are linked to the mental processes used in alphabetic spelling and are closely related to left hemispheric functioning (Shlain 1998, Ornstein 1997, Ratey 2001). Between the ages of 4-7 when the right hemisphere of the brain is dominant and the ability to understand the 'whole picture' is an already well-developed skill, many young children have begun the process towards the acquisition of formal literacy skills. However, the ability to access an alphabetic script demands a high level of left hemispheric functioning to ensure any degree of success (Hannaford 1995). Therefore, even at this early stage there may be a fundamental conflict between the natural development of the brain and the learning opportunities experienced by young children.



### Accessing an alphabetic script

In order to access a linear alphabetic script it is therefore necessary for certain left hemispheric skills to be adequately developed before the process of becoming literate and numerate begins. For many young children, their initial exposure to linear script is via books whose print is designed to fit the maximum lines of text as possible on each page and script that includes letters with shortened ascending and descending strokes to allow for closer line-spacing. Therefore children may confuse tall and short letters and the shape of words becomes less defined. Many young children are still taught 'print' script as they begin to write, a process that does not adequately prepare them for the fast-flowing movements required of later cursive, 'joined-up' script. During the years in which the right hemisphere is dominant and children may be carefully introduced to the rhythmic flow of cursive script, many are practising the singular static symbols of print script that require a high level of left hemispheric functioning for successful performance. This study proposes that in order for young children to access a linear, alphabetic script certain fundamental physical skills need to be adequately developed before the formal skills associated with the acquisition of literacy become part of their daily learning experience.

### **1.2 Physical skills related to literacy**

Hedges and Hardin (1972) state that, 'Readiness for learning is not a state that comes to all children automatically; rather, the state must be attained. For the child to attain readiness and to be successful with learning, a number of skills and abilities must be developed' (Hedges and Hardin 1972, p249). Prais (2002) described the Swiss system of education as being 'propaedeutic' in nature in that it 'served as an introduction to higher study.' Formal skills associated with literacy and numeracy are not introduced in Switzerland until the basics of, 'memory, spoken vocabulary, social capability, listening, visual discrimination and fine-motor skills' are of a sufficient standard. As Prais (2002,p61) concluded, 'These are no mean objectives: by distinguishing such a carefully graduated 'propaedeutic' phase, by laying foundations in a deeper, more thorough way, they promote more rapid learning subsequently by the class as a whole.' The 'Activity oriented observation, registration and evaluation of basic development' (HOREB) model of learning that was developed in the Netherlands also recognised that specific 'actions included' in the acquisition of formal literacy skills must be 'improved' before this may be achieved. The Montessori concept of the 'normalised' child also

supports the principle that effective learning may not take place unless and until certain fundamental skills have been adequately developed. This state is achieved at a different age for each child. Futrell (1998) describes 'normalised' children as;

**'Having a love of order, a love of work, and a profound, spontaneous concentration; they are attached to reality, they have a love of silence and working alone, they have sublimated the possessive instinct, they are cheerfully obedient, and they possess independence and initiative. They are cooperative and mutually helpful. They possess self-discipline and joy.'**  
(Futrell, 1998, p27)

For Montessori practitioners therefore 'learning-readiness' is related to attitude, motivation, character and self-knowledge and not to specific curricular skills. Laevers (1993) and Prais (2002) in contrast relate this early learning phase more closely to the future demands of formal learning. The Steiner approach (Jenkinson 1997) also emphasises the acquisition of 'pre-literacy' and 'pre-numeracy' skills that are 'caught rather than taught.'

The concept of a propaedeutic phase of learning to ensure successful access to a formal curriculum is therefore not unusual, original or confined to one country or teaching method. It is a critical period during which young children may rehearse and refine the physical skills that support and ensure access to a linear alphabetic script. The tension that exists between practitioners and academics over the nature and purpose of early years education will be discussed in Chapter 3.

### Perceptual/visual skills

It is estimated that 75 per cent of children's classroom learning comes through visual pathways and therefore visual skills play a fundamental role in ensuring successful access to a formal curriculum (Heinke and Greenburg 1981). Before entering school children use three-dimensional and peripheral vision to allow for optimal environmental learning (Hannaford 1995). A majority of children may not have had the opportunity to refine their foveal (close focus) vision for an adequate length of time before they begin their formal education. The muscles that shape the lens of the eye before age 7 are short, thereby causing it to be thin and elongated. This shape is able to accommodate three-dimensional, peripheral and distance vision with ease. At approximately aged 7 these muscles lengthen and the lens becomes rounder in shape, thus enabling the eye to engage in close focus vision more naturally. The



eyeball is not completely formed until aged 9 when the eyes are able to move from one focus to another with ease (Hannaford 1995). In the UK children start learning to recognise and write letters and numbers as early as 2.5 years, which may be inappropriate activities if the natural development of visual skills is taken into account. In South Africa it is estimated that 25.4 per cent of rural African children leave school within their first year, despite having excellent three-dimensional and peripheral vision, highly developed memory skills and the ability to speak at least two languages fluently. Their inability to use foveal focus renders two-dimensional written work a blur and consequently the children suffer stress, humiliation and failure (Pisani et al.1990).

To achieve literacy it is essential that both eyes work as a team (convergence), the image seen by each eye must be sharp and clearly focused (accommodation) and that they must be able to follow a line from left to right and then drop down to the one below (tracking). The eyes must also be able to 're-establish binocular vision' if work is to be successfully copied from board to exercise book (Goddard-Blythe 2000). Reading towards the right involves movement towards the right that is controlled by the left hemisphere of the brain. The right side of each eye that receives this moving information sends its signals to the left hemisphere of the brain in order to recognise individual letters (Ornstein 1998). Perception may therefore be closely related to cognition although evidence to support this premise is considered to be limited (Haywood 1993).

The perceptual-motor theories of the 1960's were promoted on the assumption that there was a strong link between perceptual and cognitive functioning. Educators could identify the difficulties children experienced in the cognitive (usually reading) domain by administering perceptual-motor tests and subsequently remedy the situation by training children in perceptual-motor activities requiring specific perceptual judgements. Kephart (1971) suggested that perception and cognition develop from a motor base and that children must acquire motor 'generalisations' to achieve full intellectual growth. He proposed that all children develop through seven distinct stages that represent increasingly complex information processing strategies. Children who do not develop at the appropriate rate or who miss a stage completely would experience learning difficulties and need specific training in order to fulfil learning potential. This training programme included perceptual-motor and perceptual-motor matching tasks, ocular control activities related to blackboard skills and form-perception tasks. Eye-hand coordination and



eye movement control were also highlighted. However, little evidence exists to support Kephart's belief that a perceptual-motor program is able improve the cognitive abilities of slow learners. Belka and Williams (1983) tested two domains of perceptual motor behaviour with 63 children aged 5-7 years and they found that the relationship between perceptual-motor and cognitive behaviour was moderately related in six year olds. Haywood (1993) suggests the following compromise;

'Although research does not strongly support remediation of cognitive deficiencies through perceptual-motor activities, there are indications that sensitive periods for perceptual development exist. It is important that individuals have experience moving in their environment during these periods. Perceptual deficiencies that result from lack of experience could later manifest themselves in both motor and cognitive performance.'

(Haywood, 1993, p 230)

Goddard-Blythe (2002) however suggests that a fundamental relationship does indeed exist between cognitive and perceptual development. Children who attend the Institute for Neurolinguistic Physiological Psychology (INPP) undergo a rigorous assessment process to determine the level of 'primary sensory motor reflexes' remaining in individuals. If the 'Asymmetrical Tonic Neck Reflex' (ATNR) is presented by the children (this reflex should be 'inhibited' by six months of age) this is considered to be a reliable indicator of future problems relating to literacy. The 'ATNR' in which the head, eyes and body move together in the same direction in response to stimuli must be 'inhibited' before the eyes may work independently, focus may be maintained and depth perception developed. Goddard-Blythe (2002) also suggests that the presence of a dominant eye is essential to avoid printed script 'jumping' on the page. This is often not established until aged 8. Bein-Wierzbinski (2002) also has evidence to support the existence of a close relationship between visual and cognitive skills. In her study, a group of 100 children between 6-12 years with learning difficulties were tested on a range of visual skills. They subsequently followed a 'reflex stimulation--inhibition' program that highlighted the 'ATNR' reflex and were post-tested for any change in visual ability. This study found that the program significantly increased ocular-motor control and the accuracy of their written work. However, the lack of a matching control group did not permit the author to state that the intervention program alone was responsible for the children's improved performance.

#### Spatial and visual memory/ directional awareness

Spatial memory, visual memory and directional awareness are also fundamental skills associated with successful reading and spelling. It is essential for children to develop the ability to distinguish between

similar but directionally different symbols such as 6/9, b/d, p/q, h/y, n/u/c, on/no, and to recognise that very small variations in spacing between parallel lines (A and H for example) form widely differing symbols. 'Directionality' is based on the three Euclidian concepts of time and space: up/down, back/front, right/left. The majority of 2.5 - 3 year olds have some awareness of the first two but understanding right/left does not typically develop until 4 years (Haywood 1993). Thus a sense of directionality may be a significant component in determining the level of success young children experience while acquiring formal literacy skills. Johnson (1996 p64) proposes that, 'Unless directionality is learned the child will be unable to appreciate or manipulate the spatial relations within or among the objects around him. It is possible that many 'reversals' and similar confusions in reading can be attributed to a failure to establish an adequate directionality.'

#### Aural memory and phonics

Aural memory is a skill fundamentally related to the ability to discriminate between different sounds. Phonetic awareness is currently considered to be the defining component in ensuring the success of early literacy (OfSTED 2001). Levinson and Levinson (1973) suggest that 94-97 per cent of children with dyslexia and other learning disabilities have experienced some trauma to the vestibular system in the form of ear infections and allergies when very young or having been shaken as infants. Notwithstanding that educationalists believe that the targets were politically motivated, statistics suggest that in the England and Wales young children have not yet achieved the required or predicted levels for literacy (Lawlor 2002). In 2001 one third of 7 year olds failed to reach the requisite targets set for reading and four tenths failed to reach the standard targets for writing. OfSTED (2001) state that the reason for this is; 'A lack of emphasis on phonics and weaknesses in the way it is taught in primary schools (OfSTED 2001 p.1). Also, 'There is a further decline in both the amount and quality of phonics work for 8 and 9 year olds, for whom phonics is critically important in learning to spell and to express themselves in writing' OfSTED (2001 p1).

In contrast, Wyse (2000, p362) suggests that; 'The research evidence supporting the explicit teaching of phonics is far from conclusive. It is very difficult to extrapolate the findings reliably and apply these directly to national educational policy.' He cautions that the differences in ability and experience that are evident between children at an early age do not support the promotion of a systematic teaching of phonics

and that available evidence does not support the premise that all children, 'irrespective of their pre-school development should be subjected to the same program of phonics teaching.' He concludes that 'research into 'phonetic segment awareness' has not yet provided conclusive evidence that this particular ability, 'improves/enhances or predicts a child's ability to *'understand'* a written text.' In a later paper, Wyse (2003) questions the decision to combine reading and writing under the umbrella of 'literacy' considering the different skills they require and the promotion of the formal teaching of phonics and grammar.

The system of education in England and Wales is closely related to that of the USA. In the USA it is estimated that one third of 8 year old boys are experiencing remedial reading programs and that 15,000 children are referred for educational assessment each week (Hannaford 1995). In a cross-cultural study, Seymour (2001) compared the rate of acquisition of basic reading skills by children in the UK to that experienced in other European countries. This study was based on the premise that English (as with Danish, Dutch, German and Norwegian) possesses a very 'deep' orthography. This is because a) the spelling of English maps imprecisely and inconsistently onto sounds and, b) the syllable structure of English is highly complex. This is in contrast to Italian, French, Portuguese and Spanish who present 'shallow' orthographies and lie at the 'simple' end of both dimensions. There were three components to this study: the reading of letter sounds, the reading of familiar words and the reading of simple nonsense words which can be decoded on the basis of ability to identify and blend letters and sounds. The results of the letter sounding tasks were approximately equivalent across all languages but large differences emerged between countries in the reading of familiar and nonsense words. The English group (aged 5.5 - 6.5 years) and the Danish group (aged 7 - 8 years) scored significantly lower than French and Portuguese children on these tasks. Seymour (2001) concluded that the age at which children start to read may be a significant factor but Danish children who do not start until aged 7 experience the same difficulties as those in England who start the process at least two years earlier. Seymour (2001) suggests that a learning period of 2.5 - 3 years is needed for children to become literate in English in contrast to other languages in which the same level of competence may be reached within one year (Seymour 2001). He concludes;

'The teaching methods could be important. But the teaching method for a deep orthography such as English probably needs to be different from the method of a shallow orthography such as Spanish. So, although it might be possible to accelerate progress somewhat in the UK (by appropriate emphasis on letter knowledge and decoding) it is unlikely this could eliminate the differences.



We would therefore like to retain the suggestion that learning to read in English is simply a slower process than learning in other languages. We suggest that syllable complexity affects decoding and that orthographic depth affects both word learning and decoding. It is possible that the psychological mechanism developed to encompass the task of learning to read differs between shallow and deep orthographies.’  
(Seymour, 2001 p5)

These findings have important implications for young children with SLI and EAL who attend mainstream educational settings. If, as Seymour suggests, the English language possesses inherent properties that exacerbate the difficulties in accessing its written form, how much more challenging this process will be for children with SLI and EAL who experience a range of language difficulties and may need greater levels of learning support or different teaching approaches. Blatchford and Plewis (1990) suggest that the pre-school children with specific ‘reading-related knowledge’ at school entry become more competent readers at 7 years and have retained their lead when assessed again at 11 years. ‘Children who bring to their reception year a recognition of letters and the ability to reproduce them on paper do appear to be advantaged in terms of their reading progress during primary school’ (1990 p428). For young SLI and EAL children who may not have acquired these skills within the requisite time scale, the level of disadvantage they experience is compounded.

Dockrell and Lindsay (2000) found that children with SLI in school settings experienced significant difficulties acquiring literacy. In their study of 133 eight year old children (96 boys and 37 girls) 82.7 per cent had significant problems with reading, and an even higher percentage of 86.5 per cent found spelling problematic, 75 per cent found constructing written responses to language difficult and 48.9 per cent had problems with handwriting. Interestingly, a lower percentage of 61.7 per cent were found to have difficulties with mathematics.

However, more evidence must be gained by researchers into the difficulties experienced by pre-school children with language difficulties. A significant body of data exists that relates to older children but it would be problematic to assume that recommendations for practice with older children may suit pre-schoolers.

### Laterality/crossing the midline of the body

An essential physical skill that requires constant refinement to ensure literacy is 'laterality', or the ability to cross the midline of the body. English is written and read from left to right and it is therefore essential that children are able to cross the midline with ease. There is some evidence to suggest that the crawling stage of a child's life may be closely related to the ability to cross the midline,

**'Cross lateral movements (including crawling) activate both hemispheres in a balanced way. These activities work both sides of the body evenly and involve co-ordinated movements of both eyes, both ears, both hands and both feet as well as balanced core muscles. When they are being used equally, the corpus callosum orchestrating these processes between the two hemispheres becomes more fully developed. Because both hemispheres and all four lobes are activated, cognitive function is heightened and ease of learning increases.'**

**(Hannaford, 1995 p 81)**

Typically, children with dyspraxia do not experience the crawling stage of development and in 54 per cent of cases they will also have delayed language acquisition (Portwood 2000). This evidence is convincing but further work is required relating the ability to crawl, the acquisition of laterality and language development.

### Lateral dominance and fine-motor coordination

The preferential use of one hand, eye and foot is known as 'lateral dominance' or 'handedness' and emerges at varying times during early childhood. Between the ages of 4 -6 years the majority of children have acquired a dominant side. The ability to use the pincer grip for formal work with a pencil is required by children in the England and Wales at an early age and is a skill needed for the successful completion of certain baseline assessment procedures including the Linguistic Awareness in Reading Readiness (LARR) test of emergent literacy in which the answers must be circled with a pencil.

In relation to young children with SLI, the difficulties they experience acquiring 'handedness' has an immediate effect on the range of activities they are willing or able to access in school settings. For 95 per cent of right-handed people and in 60 per cent of left-handed individuals, the left hemisphere of the brain is responsible for speech (Ornstein 1998). Therefore the development of 'handedness' was an important factor to accommodate in the design of the movement intervention program.



## Proprioception

Proprioception is intimately related to balance and body alignment. Children's early success in school may be affected by their lack of ability to sit still, work quietly, listen to instructions and respond in the appropriate manner (Hannaford 1995). Sitting still requires a highly developed sense of balance and adequate strength to sustain a fixed position. This relies on the proprioceptive sense sending constant feedback to the brain, which then adjusts the balance of shoulder and neck muscles to keep the head and eyes in the correct position to receive visual and aural information. Shrager (2001) found a relationship may exist between language ability and balance. Children with language difficulties recorded significantly lower times than the group with normal language ability on the 'one leg-stand' balance test. Although this evidence is inconclusive it may prove to be significant and was therefore included in the structure of the Initial Assessment Procedure (IAP) designed to provide data prior to the intervention stage of the study.

Successful engagement with a linear alphabetic script therefore demands a wide and varied range of physical skills. It is suggested that young children with SLI and EAL need to develop a significant degree of competence in these skills before they are exposed to the rigours of a formal, language-based curriculum. The development of these fine-motor skills plays a fundamental role in the ability of young children to engage with educational materials and affects the smooth acquisition of literacy.

### **1.3 Communication skills related to Language Development**

Language development is fundamentally related to communication skills and the cultural context in which these are acquired may play a significant role in determining the level of success or failure children experience in social interaction. In Western societies independence is valued at an early age and the acquisition of effective communication skills is actively promoted from birth (Bishop 1997). Young children are encouraged to make their own decisions, express themselves orally, maintain eye contact and cooperate with adults. Children in Japan, unlike those in the West, learn to communicate 'empathically' from a very early age. In Japanese culture it is regarded as highly undesirable to state orally anything that may be inferred more easily and high value is therefore placed on indirection and 'avoidance of imposition' (Clancy 1986). The ability to anticipate another's needs is considered to be the primary skill to ensure effective social communication. Kennedy (2000) concluded in her study that the extreme

passivity of her Thai students was closely related to the structure of their language. As an American, she was familiar with verbal debate, argument and discussion but she was forced to review her teaching methods when confronted by a culture that places no value on these modes of learning. Noting the students' extreme deference to those in authority she concluded that;

‘Status is even built into their language – whereas the English language provides words for siblings that announce their gender (brother or sister), the Thai language offers words that announce their seniority, younger or older. Thais also have several different words for ‘I’ each used by people of different status. These linguistic patterns illustrate how deeply authority and status relationships are embedded in the Thai culture.’  
(Kennedy, 2000 p79)

In a significant majority of societies the ability to communicate verbally is highly valued and in Western societies is the skill possibly valued most highly by parents and carers of young children. The language difficulties that SLI and EAL children experience in verbal communication may affect their ability to participate in the ‘culture of independence’ that is encouraged and rewarded (Bishop 1997).

However, Locke (1993) found that spoken language was the final manifestation of human social communication that appeared long after the child acquired a wide range of pre-verbal communicative strategies. Far from being primary, spoken language is a ‘supplementary system’ that is added to already well-established communicative processes. Locke (1993) therefore takes a broad view of language development that accommodates cultural differences and acknowledges the underlying skills that constitute social interaction.

Ervin-Tripp (1981) demonstrated the extent to which ‘communicative intentions’ may be understood without decoding spoken language and suggests that the majority of what is *said*, ‘serves to influence social relations, to orient the attention of the listener, or to add specification to what is already known.’ In her study a group of adults was asked to judge from videos of social interactions which ‘speech act’ was likely to occur next. Their judgements proved to be more accurate than simply guesswork which suggests that much of what is said is predictable on the basis of context and what has happened previously. These findings also support the rationale for using movement as a basis for acquiring and refining essential communication skills for children whose verbal skills are limited because increased awareness of ‘context’ and body language may support and aid social interaction.

Ornstein (1998, p99) describes 'context' as; 'Joining information about what who we are, what we can do, what our surroundings are, who is with us and what they can do.' He states that; 'This determines our comprehension of where we are in the world and in life. The individual words we speak, important though they are, are but the bare text that signs the details of life.' Bugental et al. (1990) also suggest that long before children understand the literal meanings of complex sentences they use non-verbal clues to interpret the communicative behaviour of people around them. Bishop (1997) proposes that long *after* language has been acquired pre-verbal behaviours and facial expressions remain important clues that often 'override the verbal message.'

Fey and Leonard (1983) in their overview of studies of conversational participation concerning children with language difficulties concluded that these children were significantly less responsive in this respect than normally developing children. Courtright and Courtright (1983) assessed how accurately children could match a photographed facial expression with the accompanying emotional tone of the spoken sentence, "Would you please bring that to me." Children with language impairments performed less well than the control group of children, who had no diagnosed difficulties. They concluded that this evidence was related more closely to problems with auditory discrimination rather than any impairment in socio-emotional development. Bishop and Adams (1991) concluded that children with language problems experienced a higher degree of difficulty than age-matched control groups on tests that assess levels of social comprehension. In their study children were asked for precise descriptions of pictures of cats and dogs. The children with SLI had problems in giving the relevant information even though this was not considered to relate to size of vocabulary.

Law et al. (2000) emphasised that communication skills lie at the heart of the educational process and recommend that; 'There be renewed emphasis on the role that speech and language plays in mediating all the child's experiences in school and at home.'(p7) The issues surrounding the definition, diagnosis and treatment of SLI will now be reviewed.



## **1.4 Specific Language Impairment (SLI)**

The issues surrounding the definition, diagnosis and treatment of SLI are many, varied and contentious. The term Specific Language Impairment is the one used most widely in the UK although Specific Speech and Language Difficulties is more prevalent in the USA. Bishop (1997) concludes that the former is of significance because 'specific' accommodates the premise that language difficulties must be addressed in the context of otherwise normal development and the word 'impair' suggests a diminution in the strength, value, quality and quantity of the subject under discussion. Zangwill (1978 p7) describes SLI as; 'referring to slow, limited or otherwise faulty development of language in children who do not otherwise give evidence of gross neurological or psychiatric disability and where the language difficulty is not secondary to deafness.' However, the American Speech Language Hearing Association (2000 p2) make a clear distinction between speech and language difficulties and define each as follows;

**'Speech disorders refer to difficulties producing speech sounds or problems with voice quality. They might be characterised by an interruption in the flow or rhythm of speech or there may be problems with the way sounds are formed. In contrast, language difficulties are problems in the ability to understand and/or use words in context, both verbally and non-verbally. These difficulties include improper use of words and their meanings, inability to express ideas, inappropriate grammatical patterns, reduced vocabulary and the inability to follow directions.'**

The usual approach to diagnosis is to take as a benchmark the child's performance on standard assessment procedures (Bishop 1997). If their performance falls into the bottom 3-10 per cent of children of a similar age, then intervention is justified. As Bishop points out however, this criteria is not very effective as it assumes that the prevalence of SLI will remain constant irrespective of age, country and time in history. To ameliorate these difficulties Bishop (1997 p23) suggests the following refinement should be added;

**'One answer would be to define disorder, not in terms of statistical abnormality but in terms of disability, ie. the extent to which there are difficulties in carrying out everyday activities and /or handicap, ie. whether the impairment places the child at a disadvantage in society.'**

Bishop (1997) cites the American Psychiatric Association who have added a further requirement to the World Health Organisations definition of SLI, namely the impact of language difficulties on academic or occupational achievement or with social communication. Whilst this refinement comfortably avoids dependence on statistical definitions, what is considered to be a communicative disability varies

considerably, 'depending on the social environment, the demands placed on the child and parental readiness to seek help. Two children with exactly the same level of language ability may be diagnosed as affected or unaffected solely on the basis of whether the adults who know them are concerned about their language' (Bishop 1997 p 26)

In 2002, the Government of Queensland in Australia created a new term of 'Speech-Language Impairment'. Professionals had decided that the term Specific Language Impairment covered too broad a range of difficulties to be tenable and did not account for the educational problems experienced by their client base. The categories provided by the Diagnostic and Statistical Manual of Mental Disorders were too narrow and confined to children's difficulties surrounding receptive or expressive language, or both. A distinguishing feature of this new category is the emphasis on learning. Criteria have thus been changed to accommodate this and are possibly less open to misinterpretation.

The absence of a universally accepted definition of SLI, the broad range of available assessment procedures and the difficulties associated with accurate diagnosis relate to an even more contentious area that was highlighted by Law et al. (2000) in their report on the availability of language therapy in England and Wales, namely what is the precise purpose of therapeutic interventions? In this report evidence was provided to support anecdotal data relating to the 'uneasy relationship' that exists between the departments of Health and Education. This manifests itself particularly in debates over funding and provision for speech and language therapy. Speech and Language Therapists (SLT) conventionally place emphasis on 'deficiencies within the child' and consequently follow 'impairment-based therapy.' Intervention is closely linked to structured outcomes and, in line with the philosophy of the Department of Health, the model they follow is essentially 'curative' in nature and approach. The difficulty of using this model however lies in the fact that the majority of young children undergoing language therapy are treated in educational settings, within which the rationale of the practitioners is to 'optimise the child's learning environment.' For teachers, the therapeutic process is viewed as a means of 'filling in the gaps' to ensure the children are brought up to 'normal levels' and facilitate their access to the curriculum. Primarily, they will be influenced by progression dictated by the curriculum. In contrast, SLT's are more concerned with the developmental norms for language development that may not run precisely in tandem with curricular demands.

In the study produced by Law et al. (2000) Language Units were defined as (p41); 'where the children are in a separate class for most of the time, with their own specialist teacher and SLT. 'Language resource bases' were defined as, 'where the children are educated in their mainstream year group for most of the time, with a specialist teacher and SLT available for a significant period of the week. The 'Association For All Speech Impaired Children' (AFASIC) define a Language Unit as being, 'a special facility which is usually attached to a mainstream school. It gives extra help to children with specific language difficulties, so that they are able to return to a place in mainstream school as soon as possible.' Per year group the volume of caseloads waiting to be addressed were highest in the 0-4 age group; less than one third of Local Education Authorities provided language units in the nursery phase; of the 189 questionnaires that were returned in order to gather data, 68 per cent of LEA's reported that 25 per cent of children requiring therapy were treated in educational settings; 88 per cent of the SLT managers involved in the study reported that they had no more than three language units in their entire area for primary age children and, even more problematic, that the pre-school age group received a disproportionately low number of therapeutic sessions.

Despite the acknowledged tensions that exist between teachers and therapists regarding the purpose and expectations of therapeutic interventions, the report by Law et al. (2000) clearly states that the two professions should have as a common cause; 'a renewed emphasis on the role that speech and language plays in mediating all the child's experiences in school and at home' (p.vii) Most pertinent to the movement intervention study is their insistence that communication skills are as important as curricular skills to children's development;

'Communication is at the heart of the educational process. Language, whether written or spoken is the most effective medium for a child to show he or she understands a topic in class and can access the curriculum. But communication is equally key to the child's broader well-being and mental health. Being able to convey personal and social needs to friends and family is an integral part of the process of growing up.'

(Law et al. 2000 pi)

In 2000, the SLT profession joined the 'Council for Professions Supplementary to Medicine' that in turn was taken under the guidance of the Health Professions Council (HPC) in 2001. In 2004, the Department



of Health produced a scheme entitled the 'National Service Framework for Children, Young People and Maternity Services.' The following pledge is made in the forward (p2);

**'At the heart of this National Service Framework is a fundamental change in our way of thinking about children's health. It advocates a shift with services being designed and delivered around the needs of the child. Services are child-centred and look at the whole child, not just the illness or problem, but rather the best way to pick up problems early, take preventative action and ensure children have the best possible chance to realise their full potential.'**

This ten-year program intends to, 'lead to a cultural shift, resulting in services that are designed and delivered around the needs of children and families using these services, and not around the needs of organisations.'(p3) This radical shift may have a profound impact on the increased provision for language services for young children and on the critical role played by parents in their children's language development.

### **1.5 English as an Additional Language (EAL)**

The teaching of English as an additional language (EAL) was an important component of the SCAA (1996) guidelines in which educators of four-year-olds were encouraged to, 'Provide the framework for planning educational activities which ensure that equality of opportunity.' EAL pedagogy has yet to receive adequate attention in England and Wales as it is considered that children are able to 'absorb' another language simply by being in an 'active learning environment.' Crystal (1987) writes that; 'If the language environment is natural, consistent and stimulating, children will pick up whatever languages are around.' Gee (1989) also states that; 'Languages are not mastered by overt instruction...(hardly anyone ever fluently acquired a second language sitting in a classroom), but by enculturation (apprenticeship) into social practices through scaffolded and supported interaction with people who have already mastered the language. (p.9)

Dodwell (1995, p7) highlights the difficulties experienced by young bilingual children; 'For the young bilingual child with an as yet insecure command of her second language, the task of achieving effective social speech is even more complex than for the monolingual child, no matter what the level of her conceptual development or social skills.'

Dodwell (1995) also stresses the importance of using young children's *primary* languages in school settings as an effective aid to developing their fluency in English. In her study she described the ways in which pre-school children may be encouraged to solve problems, acquire new concepts and build bridges between the cultural expectations of home and school through discussion of how language may be used in different settings. Lightbown and Spada (1999) suggest that there should be greater concern for young children in learning situations where they are 'virtually cut off' from their family language and 'submerged' in a second language for long periods of time at school or in day care centres. They state that these children often begin to lose their indigenous family language before gaining an age-appropriate mastery of a new language. This is frequently referred to as 'subtractive bilingualism' and may have serious negative consequences for young children in early educational settings. Lightbown and Spada (1999) concur with Dodwell (1995) that it is essential for these children to retain familiarity with their family language and continue to use it in home settings; 'Children who can begin their schooling in a language they already know will have more self-confidence, will be able to learn more effectively in the early school years, and will not lose time in a period of limbo during which they struggle just to understand what is happening in the classroom.' (p.164)

Wong-Fillmore (1991), Collier (1995) and Ramirez (1992) also have evidence to suggest that on-going fluency in the mother tongue may influence children's acquisition of English and hence academic achievement. Chan (1995) in his study of young Chinese speaking children in the UK suggests that the variability of language support in schools often leads to cultural alienation and intergenerational conflict. This in turn results in lack of motivation and poor academic performance. Dodwell (1995), Chan (1995), Wong-Fillmore (1991), Collier (1995) and Ramirez (1992) agree that the use of children's primary language in educational settings may play a fundamental role in ensuring cultural integration and academic achievement.

Drury (2000) suggested that the process of learning a second language is dependent on a number of interrelated factors and is significantly more complex than has been acknowledged previously. She also proposed that school settings should provide the socially supportive framework within which children may actively construct their own ways of learning. In her study of a four year old Pahari speaking girl in



her first term at nursery school, Drury (2000) highlighted her problems with peer group interactions but noticed her increased confidence in verbal English through rehearsing school rituals such as lining up and getting ready for outside play at home with her younger brother. This study also emphasised the importance of bilingual classroom assistants in pre-school settings.

Willet (1987, 1995) focused on the importance of social interaction and examined how 'desirable identities', social relations and ideologies may be constructed in the pre-school years. Volk (1997) and Weisner et al. (1993) also highlighted the continuity and discontinuity of language use at home and school and how this may relate to academic success. Rice et al. (1991) studied the communicative competence of young children. Bilingual children formed the control group, and the other group had SLI. Their evidence suggests that both groups may suffer from social exclusion because of their limited language abilities. These findings support the view that it is *how* a child communicates rather than any intrinsic social limitations that determine the reactions of others. In conclusion, Lightbown and Spada (1999) state that; 'We should keep in mind that an individual's identity is closely linked to the way he or she speaks. It follows that when speaking a new language one is adopting some of the identity markers of another cultural group.' (p.56)

Tabors (1997 p35) proposes that young children who are at the early stages of competence in English have a particular problem that she names the 'double bind situation': 'In any language-learning situation in natural circumstances, communicative competence and social competence are inextricably interrelated. The 'double bind' is that each is necessary for the development of the other.' Not only is it necessary for bilingual children to achieve a certain level of social and communicative competence in order to succeed at school, they must simultaneously develop adequate formal academic skills often without previous exposure to an alphabetic script, upper and lower case letters or abstract forms of number.

Drury (2000) concluded that bilingual learners need 'more positive interventions' for second language learning than is implied by the term 'osmosis' and that engagement in 'meaningful dialogue' with adults may be the defining factor in the successful acquisition of a second language. O'Brien et al. (2000) noted that teachers of young bilingual children are concerned that the 'non-interactive' parts of the 'literacy



hour' of the National Curriculum may diminish the opportunities these children may have to process and develop language through interaction.

## **1.6 Theories of language development**

Theoretical approaches to language development fall broadly into three categories: 'behaviourist', 'innate' and 'interactionist' (Lightbown and Spada 1999). The behaviourist approach was popular in the 1940s and 1950s and took the position that language learning is a result of initiation, practice, feedback on success and 'habit formation'. Children from birth onwards imitate sounds they hear around them and are given ongoing encouragement by the environment (adults) to imitate and practise sounds until 'habits' are formed. Trevarthen (1993) has evidence to suggest that within minutes of birth infants can imitate adult behaviour and be active players and communicators. By using facial expressions, whole body movements and making different sounds with their mouths, they begin to recognise the fundamental relationship between rhythm, sound and gesture.

For the behaviourists, imitation and practice are the primary processes of language development. However, analysis of children's speech suggests that language learning is not based on imitation alone and that their choice of what to imitate is based on understanding and not simply what is available to them in the environment (Lightbown and Spada 1999). Some children may imitate up to 40 per cent of their speech while for others the rate of imitation may be as little as 10 per cent. Behaviourists consider language development to be based on the formation and rehearsal of 'habits'. Therefore it is assumed that someone beginning to learn a second language begins with the habits formed in the first language which then interfere with the new ones needed for the second language. Evidence that these statistics also apply to SLI children is not forthcoming. The diagnostic system is competent but data relating to this specific area is not yet available.

This approach was linked to the 'Contrastive Analysis Hypothesis' (CAH) that proposes if the primary and secondary languages are similar, the secondary language will be acquired with ease, but where there are differences, difficulties will occur. Research has shown that despite the primary language influencing

the target language this is not to the degree claimed by the behaviourists, who may provide an incomplete and narrow explanation of language learning (Bruner 1991). Behaviourists are challenged by psychologists and linguists, who do not accept that the results of their early experiments on laboratory animals can be applied to the natural learning of languages by humans. Gardner (1991) states that, 'All that mattered were the overt behaviours that could be objectively observed and measured across the animal kingdom.' (p.25)

Chomsky (1986) in contrast, proposes an 'innatist' approach to language acquisition. He claims that children are 'biologically programmed' for language and that it therefore develops in the same way as other biological functions such as walking. The environment is considered to make a basic contribution to language acquisition but the child's biological endowment will do the rest. Chomsky (1959) proposed his theory in reaction to what he considered to be the inadequacy of the behaviourist theory of learning. He argues that children come to know far more about the structure of their language than can be explained by imitation and 'habit' formation through listening. The language that children hear is full of mistakes and misinformation and parental corrections of language errors involving young children are inconsistent and often non-existent.

Chomsky claims that children are born with an innate ability to discover for themselves the underlying rules of a language system. Originally this skill was referred to as a 'Language Acquisition Device' (LAD), an imaginary 'black box' that exists somewhere in the brain that contains all and only the principles that are universal to the spectrum of human languages. The child simply needs to be exposed to samples of natural language for the innate LAD to work. Once activated, the child is able to discover the structure of the language to be learned by relating the innate knowledge of grammatical relationships to the language as used in particular environments. The LAD is now known as 'Universal Grammar' (UG) and combines the basic linguistic principles common to all languages. Children have only to learn the ways in which their own language makes use of these principles and the particular variations that may exist within. Chomsky did not make specific claims for the existence of UG for second language learning but it has been considered to offer a useful perspective from which to understand Second Language Acquisition (SLA) (Lightbown and Spada, 1999). However, Chomsky's current work on

parseable grammatical structure and neural-network frequency analysis claims to have laid the foundations for the digital understanding of language. The mathematical basis of speech/sound analysis and the possible development of a 'functional translation system' point, according to Chomsky's supporters, to a 'logical symbol structure' that may in future foster 'understanding between cultures' (Chomsky 2000). The Rosetta Stone language project that is directed from the Long Now Foundation in San Francisco owes its inception to Chomsky's proposal for the existence of Universal Grammar (Scientific American 2002).

Critics of Chomsky's approach point out that if knowledge is considered to unfold according to a genetically programmed timetable, educational intervention is therefore of little value. They also point out that if each form of knowledge emerges according to its own rules the transfer of knowledge from one educational setting to another or from home to school is impossible (Bruner 1986). Bruner describes Chomsky's failure to address the factors that permit human 'cultural inventiveness' as the 'Achilles heel' of his approach. Nelson Goodman, Chomsky's tutor, pointed out that just because it may be difficult to work out how something is learned is not sufficient reason to conclude that it must be innate.

Chomsky is also criticised for concentrating on the 'final state' of knowledge and not sufficiently taking into account the developmental stages that lead to mastery (Bruner 1991). Lenneberg (1967) argued that the LAD or UG may only operate at certain 'critical stages' of development. This became the first principle of the Critical Period Hypothesis (CPH). Researchers investigating practitioners of American Sign Language (ASL) conclude that their evidence supports the existence of a critical period for first language acquisition (Newport 1990). Bruner (1986) however, does agree 'in part' with Chomsky's 'innatist' perspective;

'The evidence from early pointing and from the infant's early following of another's line of regard suggests there must be something pre-adapted and pre-linguistic that aids us in achieving initial linguistic reference. One has to conclude that the subtle and systematic basis upon which linguistic reference itself rests must reflect natural organisation of mind, into which we grow through experience rather than one we achieve by learning. If this is the case, then human beings must come equipped with the means not only to calibrate the workings of their minds against one another but to calibrate the worlds in which they live through the subtle means of reference.  
(Bruner, 1986, p.63)



He proposes that universal grammar (UG) must be supported in some way by a 'Language Acquisition Support System' (LASS) which would account for the environmental influences considered to affect language development. A recent approach to language acquisition is known as 'connectionism'. This approach proposes that language does not require a separate 'module of the mind' (as Chomsky claims) but may be understood in terms of learning in general. Supporters of this approach claim that children acquire language through ongoing exposure to thousands of instances of the linguistic features they eventually learn. Lightbown and Spada (1999) conclude; 'Thus while innatists see the language input in the environment mainly as a trigger to activate innate knowledge, connectionists see the input as the principal source of linguistic knowledge.' (p.42)

The 'innatist' position may account for the acquisition of complex grammatical structures but the minimal status it gives to environmental factors in language development makes this approach narrow and unsuitable as a framework for understanding SLA in young children (Lightbown and Spada 1999). The 'interactionist' approach to language acquisition claims that language develops through the complex interplay between the characteristics of the child and the environment in which s/he functions. In this model, modified language and child-centred speech are considered to be crucial elements in language development. This process is similar to and influenced by other skills and knowledge and is not independent of cognitive development.

Piaget (1968) believed that the development of cognitive thought is built on the interaction between the child and objects that can be observed, touched and manipulated. In contrast to the innatist position, Piaget did not consider the basis of language to be a separate 'module of the mind' but as being one of many symbol systems developed over the first eleven years of life. He considered number, not language, to be the key to intellect and an appreciation of how quantities relate to each other and may be manipulated to be the foundation of logical thought. For Piaget, language may be used to reflect thought but it does not determine it: the fact that the logic of thought is expressed in language does not affect logic itself. The ability of children to use and understand the symbol systems of their cultures comes from direct interaction with the environment and not from talk and language.

Vygotsky (1978) also took a strongly interactionist approach to language development. In contrast to Piaget who believed that language develops as one of many symbol systems to express knowledge acquired through interaction with the environment, Vygotsky claimed that thought was internalised speech and speech emerges in *social* interaction. He argued that in a supportive interactive environment the child may advance to a higher level of knowledge and performance than he or she could do independently. Vygotsky referred to what the child could do in interaction with another but not alone as the child's 'Zone of Proximal Development' (ZPD). He considered conceptual learning to be a collaborative enterprise that involves a 'loan of consciousness' from adult to child in order for the child to enter the 'optimal learning zone' of the ZPD.

Human learning presupposes a specific social nature and a process by which children grow into the intellectual life of those around them. Thus the notion of a zone of proximal development enables us to propound a new formula, namely that the only good learning is that which is in advance of development.'  
(Vygotsky, 1978 p 88)

Vygotsky proposed that different ways to enter the ZPD become institutionalised at school, in folk stories, films and fiction. He considered language to be an 'agent' that is able to alter the powers of thought and give thought a means of explaining the world. Language in turn becomes the repository for new thoughts.

Bruner (1986) however, questions whether the ZPD is really the optimal means by which children acquire knowledge. He writes;

'Is the Zone of Proximal Development always a blessing? May it not be the source of human vulnerability to persuasion, vulnerability because the learner begins without a proper basis for criticizing what is being 'fed' to him by ones whose consciousness initially exceeds his own? Is higher ground better ground? Whose higher ground? And are those sociohistorical forces that shape the language that then shapes the minds of those that use it ... are those forces always benign?'  
(Bruner, 1986, p 148)

Vygotsky's theory that all cognitive development including language arises from social interactions between individuals has been used as a framework for research into Second Language Acquisition (SLA). Lantolf and Appel (1994) propose that second language learners advance to a higher level of

linguistic ability and knowledge when they collaborate and interact with speakers of the target language who are more able than they are. Hatch (1992), Pica (1994) and Long (1983) argue that a large proportion of SLA takes place through conversational interaction in social settings.

Kraschen (1982) makes the distinction between 'acquiring' and 'learning' a second language. *Acquiring* is achieved through exposure to examples of the language that are understood, whereas *learning* happens via a conscious process of study and attention to form and rule-learning. For Kraschen 'acquisition' is a more important process and only acquired language may be suitable for fluent natural communication. Knowing the rules of language only supplements what language has already been acquired and therefore the focus of language teaching should be on acquisition, not learning. Kraschen asserts that language can only be acquired through exposure to 'comprehensible input'. Following the Vygotskian model of ZPD (Kraschen names this  $i+1$ ) comprehension and acquisition will occur if the input contains forms and structures just beyond the learner's level of competence. Kraschen's work has been influential in supporting the model of Community Language Teaching (CLT) in the USA but he is criticised for failing to propose hypotheses that can be tested by empirical research and for minimising the importance of language form.

The study of language development produces many and varied theories which claim to account for the working of the human mind. Gardner (1991) proposes that there are two competing approaches to cognitive development. First, that research into brain development has shown that 'language is one of the many special forms of knowledge' and even within this domain such operations as reading and speech analysis may operate quite differently from each other. Second, the ways in which culture interacts with the nervous system must be acknowledged and accounted for. The advent of 'cultural artifacts' such as computers, aeroplanes and scientific instruments cannot, Gardner claims, be based on genetics;

'The exploration of specific domains like language has revealed their intricacies, their neural specificity and the surprising constraints that influence the unfolding and operation of human cognitive activity. The renewed attention to cultural artifacts has underscored the extent to which human development is incomplete, perhaps even inconceivable, in the absence of consideration of cultural and social influences and contrivances.'  
(Gardner, 1991 p 41)



## **1.7 The relationship between Language and Movement**

The relationship between language and movement is considered to be, as yet, 'undefined' although neurophysiologists have been searching for decades to find a possible neural link between the areas of the brain responsible for movement and cognitive activity. Middleton and Strick (1994) suggest that the two areas of the brain usually associated with control of muscular functioning (the basal ganglia and the cerebellum) may also be important in co-ordinating thought and relate closely to the frontal lobe, where the planning and timing of future behaviour occurs. Keele and Ivry (1991) suggest that Broca's area of the frontal lobe that is responsible for speech and formal reasoning may also affect motor skills involving the hand. Tomatis (1991), by using fibre-optic cameras, discovered that babies in utero responded to the sounds of specific phonemes by moving particular muscles in their arms and legs. The babies varied individually as to which muscles they chose but they responded to each sound consistently in the same way. This early connection between movement and sound suggests the future importance of anchoring sounds to actions for effective learning to occur.

A fundamental skill that affects successful language acquisition is the ability to distinguish between different sounds. These must be matched eventually to discrete symbols that are written between two horizontal lines, in a specific order, include upper and lower cases, and be of similar size. Writing and spelling require a controlled, measured response to the stimulus of sound. There are approximately fifty phonemes in language world-wide and it is possible that this early motor response to sound allows babies to become sensitive to the possibilities of communication at a very early stage.

Movement, because it has a close relationship with the motor cortex is intimately related to verbal expression. The motor cortex stimulates the muscular movements of the larynx, tongue, mouth, jaw, facial muscles and eyes that form and give expression to the spoken word. The memory of word formation is stored in the basal ganglion of the limbic system. Within the basal ganglion lies an area named the substantia nigra, one that is actively involved in movement, thought and speech. It organises

gross- motor movements from the cerebellum and fine-motor movements from the motor cortex of the frontal lobe to accommodate movements based on thought and speech. As Hannaford (1995) clarifies;

‘The neural connections between the motor cortex and the formal reasoning area of the frontal lobe underscore the importance of movement-to-thought processing. Movement becomes a vital part of language as integrated thought patterns are transmitted to the vocalisation areas of the motor cortex and basal ganglion of the limbic system to bring thought into the formation of words, first in speech and later in writing.’  
(Hannaford, 1995, p 92)

Finally, Lakoff and Johnson (1980) propose that the manner in which different cultures perceive the world, their attitudes to achievement, happiness, conflict and religion may be developed through the interface between language and physical experience. They suggest that these conceptual systems emerge through experience and are manifested in the cultural use of metaphor. Especially pertinent to young children are the ‘orientational’ metaphors that are intrinsically related to spatial awareness and physical experience. They discuss the possible reasons why the words happy, conscious, health and more are always associated with ‘up’ while the words sad, unconscious, sickness and less with ‘down’. Young children with limited language skills are exposed to these concepts and must make sense of them on a daily basis. The confusion they suffer relating the underlying meaning of concepts to their own experiences must never be underestimated.

## **1.8 Summary**

The physical basis of curricular and communication skills has yet to be acknowledged to an adequate degree by practitioners. The nature and range of difficulties experienced by pre-school children with SLI and EAL in both accessing the curriculum and developing interactive skills have not received the support and focus necessary to ensure the smooth development of their educational journey. Theories of language development are many and varied and not one approach may account for, or explain the intricate workings of the human mind. The relationship between movement and language development is, as yet, unproven, yet support for a link is significant. The study will serve to explore this area and proposes that fundamental movement skills may serve to underpin and assist the acquisition of both curricular and communicative skills in pre-school children with SLI and EAL.

# **CHAPTER 2**

**The Developmental  
context of the study**



## **THE DEVELOPMENTAL CONTEXT OF THE STUDY**

### **2.0 Introduction: The relationship between the body and identity**

A fundamental principle of the study was the utilisation of children's physicality as a prime means to support the development of language skills. Mayall (1996) states that; 'children's bodies are the critical site of their own experience and of adult interpretation and behaviour.' (p 7) They constitute the 'centre of adult attention' in their early years, and physical health is a deciding factor in determining the level of positive interaction with both the physical and social environment that young children experience.

Mayall (1996) suggests that physical and social well-being are inter-linked and interactive. Young children learn that the acquisition of a socially valued body is a feature of growing up; 'Their identity at home and later at school is constructed in part through negotiation with their peers and with adults' (James 1993). At school children are continually required to 'subdue their bodies in the interests of adult timetables and civilising agendas', they are asked to 'manage their emotions in order to make the space for cognitive work' (Mayall 1996).

James (1993) noted that cultural stereotypes concerning the constitution of a 'normally developed' body for a child assumes enormous importance for both adults and children. Amongst children themselves, experience of bodily differences function as important signifiers for social identity. James (1993) noted five aspects of the body which children find particularly significant, these being: height, shape, appearance, gender and performance. Children must therefore come to terms not only with their constantly changing bodies but also with the changing contexts in which meaning is given to these changes. In one context a child might be the largest and strongest, but modify the context and the reverse may be true.

Freund (1988) suggests that 'social controls' relating to the organisation of time, space and action may have an impact on the muscular and skeletal structure of the body; girls learn not to develop their muscles and restrict their bodily movements if they are to become socially acceptable. Children learn that developing control over their bodies (for example, learning to dress themselves, swim unaided or ride a

bicycle) contribute to how their days are organised and leads to a greater variety of opportunities (Young, 1980).

However, physical experience in educational settings may be valued less highly than cognitive activity. James (1993) suggests that; 'Adults encourage the belief that children's physicality is a problem; that their bodies are less valuable than their minds.' Thus there is continual tension between children's compulsion to rehearse and refine their physical skills, their use of 'physicality' as a means to enhance their sense of self-identity and the demands of educational settings that value assimilation and control of the body in order to keep the 'status quo'. As Bendelow et al. (1996) conclude; 'For the quality of children's emotional contentment in embodied living, much depends on how far adults accept their person-hood and their contributions to the structuring of the social order.' (p 21) The difficulties associated with embracing active learning to promote language development may be highlighted with reference to various approaches to learning.

## **2.1 The Medau teaching method**

The teaching method on which the movement intervention program was based was developed by Hinrich Medau. Medau was a pioneering music and gymnastic teacher and contemporary of Laban, Bode and Dalcroze. Greatly influenced by the work of Gunther Mutz, Pestalozzi, Maria Montessori, Rudolf Steiner and the French theatre designer François Delsarté, he developed a method of learning through movement that is essentially holistic and based on sound developmental principles (Jackson 1992). The Medau movement intervention program differs from the therapeutic and physical programs developed by Dennison (1994), Hannaford (1995), Blythe (1992), Rockett and Owens (1995), Johnson (1996) and Weikart (1996) in one fundamental respect. In these programs either precise body positions are sustained in order to engender a specific neurological effect, so that the relationship between the position and the expected learning outcomes exist only on this level, or movement is used as a means by which particular physical-readiness skills are practised in order to affect attitude to learning and performance.

In the Medau teaching method the medium and the message are one and the same. In a similar manner to the way in which access to an alphabetic script profoundly affects the way in which its readers and writers



function and behave, this approach believes that learning through movement is not just one means among many by which information may be accessed but is a significant force in creating new perceptual realities. Movement is not used primarily to ensure improved performance on standardised tests but provides a meaningful and relevant conduit by which the understanding of concepts may be enhanced. Language development therefore lies at the heart of these experiences.

In contrast to Dalcroze who used movement as an aid to the teaching of music, Medau developed the use of music and rhythm to extend the possibilities of understanding and experiencing concepts through movement. Rhythmic awareness is an essential skill associated with language development and is intimately related to song and rhyme. It therefore played a significant role in the development of the movement program. Hand apparatus is also promoted in this teaching method to enable children to further their understanding of concepts and emphasis is placed on working within a group or with partners. The fundamental principles of the Medau method are outlined below:

**1) Movement is used as the primary means by which physical skills related to learning may be enhanced**

Extending opportunities for learning lies at the centre of this method. It does not entail a specific graduated physical program designed to effect change in areas of academic achievement nor does the method claim a particular therapeutic value. Rather, the method uses the 'common currency' of movement to enhance underlying physical skills associated with the development of curricular and communication skills in young children

**2) Teaching on a theme is the means by which this is realised**

The rationale for this is the extension of opportunities for young children to rehearse and refine vocabulary whilst experiencing concepts in a movement context. The themes chosen may be related to classroom projects, outings, festivals, or simply, be physical concepts such as balance, strength, speed or stretch. This differs considerably from the dance or gymnastic approach to physical competence in which the critical link between action and vocabulary is not as significant. The strength of this principle is that it allows for the simultaneous focus on both curricular and communication skills during each practical session.



**3) The use of music and rhythm is integral to the development of learning skills**

Empirical evidence supports the use of music and rhythm to enhance learning development. Music is used in a wide variety of physical disciplines such as dance and gymnastics but is not related primarily to the development of curricular and communication skills in young children. The flexibility of the Medau approach allows for a wide variety of musical genres to be used and encourages the use of rhyme to enhance verbal interaction.

**4) Use of the 'immediate environment' as a learning aid is critical**

This principle is unique to the Medau teaching approach. The 'immediate environment' relates to the physical properties of those participating (height, size, clothes, eye-colour) and the physical environment in which the sessions are delivered (walls, curtains, chairs, tables, flooring). This principle allows for a significant level of flexibility in choice of venue and a lack of reliance on specialist clothing and equipment. This in turn has a positive effect on the ability of practitioners to deliver sessions and not be dependant on funding demands in order to do so.

**5) The use of familiar and manageable hand apparatus is used to promote the development of curricular and communication skills**

Hand apparatus is chosen carefully for the second phase of each session to encourage the development of curricular and communication skills simultaneously. The materials used are easily recognisable and available to the children and relate closely to the chosen theme. Manipulation of the apparatus refines the skills associated with access to the curriculum and allows for a significant element of verbal interaction to be included.

**6) Themes are made relevant to daily life and the transfer of skills between environments is encouraged**

The Medau approach believes that the transfer of skills between the environments young children experience is fundamental to the development of curricular and communication skills. This principle ensures that learning is not situation specific or reliant on particular materials. It also encourages the active participation of parents and carers in their children's learning development. Children are

encouraged to rehearse skills experienced in a movement setting in both their educational and home environments, thus extending opportunities to practice vocabulary and develop visual and coordination skills.

### **7) Group involvement is fundamental**

The Medau approach believes that a critical factor in the development of curricular and communication skills is the use of group work. Young children with language difficulties may become frustrated and isolated by their low levels of ability to access the curriculum and communicate effectively. Opportunities to engage with educational resources and interact with their peer groups are limited if positive steps are not taken for them to interact as a group. Although in Medau sessions the size of group may vary considerably, the children are afforded specific opportunities to develop essential skills that are frequently denied them in mainstream settings.

**The ten lesson plans for the intervention program may be viewed in Appendix 10**

The available literature relating to the method is narrow in scope and confines itself to the practical application of principles. No critical studies exist that support the premise that the method may have the possibility to support early years language skills. With reference to electronic search engines, only a single reference to the method was noted between 1990 and 2004. However, a fuller discussion of the practical application of teaching principles throughout the intervention program may be accessed in Chapter 4.

## **2.2 Movement and Learning**

Asher (1977) suggests that movement may be successfully used to teach a second language. His method of 'Total Physical Response' (TPR) combines movement and vocabulary to enhance second language learning. Gildenhuis et al. (1995) adopted this approach to teach English to a group of 34 black South African children aged 6 to 8 years. The main difference between their approach and that of Asher's was in the use of parents and carers as a critical component of the program. At the program's conclusion, all

the children had achieved some oral competence in English. The 'process of action' had enhanced the process of language acquisition.

Lamon (1987) has evidence to suggest that the passive language capacity of young children may be enhanced through movement. Kindergarten children participating in a movement-based program (3 x 20 minute sessions each week throughout the school year) scored significantly higher on the Peabody Picture Vocabulary Test (PPVT) when assessed at the close of the program than those forming corresponding control groups who experienced no stimulation or training. Corso (1993) concludes that there may be a correlation between children's body space awareness and paper space awareness. The amount of body space children use when performing certain actions closely mirrored the amount of paper space used when they were involved in colouring and writing activities.

Shephard et al. (1984) gathered evidence to suggest that movement-based learning may have an effect on mathematical ability. Children participating in a daily movement program were instructed in mathematics immediately after each session. Those involved improved faster in this field than those forming a control group. Davies (1995) has evidence to suggest that the degree of accurate and detailed verbal description, which had already been shown to correspond to the detail and complexity of children's movement activity, in turn related to their ability to represent their actions pictorially. Hitchcock (1998) has evolved a system of teaching the grammatical rules of English through a selection of hand signals.

### **2.3 Other movement programs**

Movement programs are currently used to enhance the learning potential of young children in a variety of educational and therapeutic settings. These fall into two distinct categories: either they are designed as part of a therapeutic process to develop learning potential, or they are structured to have a direct impact on specific curricular skills. The 'Brain Gym' program of Dennison (1994), the 'Reflex Stimulation-Inhibition' program of Blythe and Goddard-Blythe (1992), the treatment pioneered at the Dyslexia, Dyspraxia and Attention Disorder Treatment (DDAT) centres fit into the former category. The 'Every Child a Winner (ECAW) PE based program (1995) and the Laban based 'Project First Step' (1996), and Weikart's 'Rhythmic Competency' program (1996) are in the latter category.



## Brain Gym

During the 1970's Dennison developed his program at the 'Valley Remedial Group Learning Centre' in California, USA. 'Brain Gym' grew out of his background in curriculum development and experimental psychology. He adapted the work of practitioners in sensory motor training, applied kinesiology and developmental optometry who provided him with the statistical research relating to the link between movement and learning. Dennison (1994) developed a program of quick, simple task-specific movements that, he suggests, may benefit any learner.

The program focuses on cross-lateral, static, fine-motor movements that activate the muscles on both sides of the body. He proposed that these movements relate directly and simultaneously to the integrated and equal activation of nerve networks in both hemispheres of the brain. Each exercise involves a specific position that may be performed anywhere at any time. These positions also relate to particular neural pathways that Dennison believes need to be 'unblocked' in order for learning to occur. Hannaford (1989) found that the Brain Gym program had a positive effect on curricular skills. A group of special needs students were tested on the 'Brigance Inventory of Basic Skills' at the beginning and end of a school year. A control group was not used but all those participating performed five to ten minutes of 'Brain Gym' exercises daily during this time. At the end of the year all students had gained an average of between one to two years on reading and comprehension tests and half of those participating had gained a year in mathematical reasoning.

However, the difficulties concerning balancing ability that SLI children experience renders many of these positions extremely challenging to perform. As an aid to enhancing language skills the program does not address the diverse range of skills young children need to become effective communicators. Neither do the positions relate to specific concepts or address the wide range of difficulties children with language difficulties experience in accessing a formal curriculum.

A significant difficulty noted in relation to this program is the absence of critical studies that suggest that any improvement achieved on standard assessment procedures is due to involvement in the program alone. The claims made on behalf of the Brain Gym program are substantial and have encouraged a range

of educational settings to include the exercises in daily practice, yet without the implementation of effective control groups and a rigorous independent analysis of data, quantifying the true effect of the program remains problematic. However, the strength of the program lies in the ease of its practical application. The exercises may be performed by individuals or groups at any time in any place. No specialist equipment is required and the training available for practitioners is neither time consuming nor demanding. In relation to other therapeutic programs that include rigorous and time consuming training this approach could be applied readily to pre-school settings.

#### The 'Reflex Stimulation-Inhibition Program'

Blythes' 'Reflex Stimulation-Inhibition Program' (1992) is based on the premise that each normally developing infant makes identical stereotyped movements (among other random movements) at approximately the same age irrespective of culture. These stereotypical movement patterns assist the developing brain and central nervous system in the inhibition of specific primary sensori-motor reflexes at the appropriate time of development. If these primitive reflexes are still present beyond the first six months of life, the emergence of later 'postural' reflexes, whose presence is fundamentally related to successful formal learning, may be adversely affected. The continued presence of the primitive reflexes are believed to play a significant role in writing difficulties, reading problems, spelling, copying problems and computational difficulties.

Children (aged between 7-12 years) who follow a personal 'stimulation-inhibition' program experience these specific difficulties at school and conventional therapies have frequently not provided effective treatment. Individual 'reflex stimulation- inhibition' programs are experienced for between 4 to 14 minutes each day and are continued for between 14 to 25 months. Throughout this time the child undergoes a process of 'Developmental Re-Education' at the end of which the postural reflexes may emerge spontaneously and 'positive learning' may begin.

Gustaffsson and Pedersen (1981) found that 'reflex stimulation- inhibition' programs also had a positive effect on learning ability. Sixty-four per cent of children in their study who experienced a program reported better motor development and coordination, improved eye movements and visual perception, better developed literacy skills and their speech, concentration and memory improved. Blythe (1992) also



reported that children who participated in a 'reflex stimulation-inhibition' program improved their reading age between 3.1 months and 9.3 months.

A similar difficulty emerges as with the Brain Gym program when attempting to assess the effect of individual 'Reflex Stimulation-Inhibition' programs on children's development. The absence of a significant body of critical studies to support the claims made for the success of this approach is problematic. There is no independent monitoring of the centre which remains firmly on the fringes of mainstream therapeutic practice. The children who attend the venue are not assessed in their own settings so any additional data that could inform the personalised intervention programs remains elusive. In contrast to the Brain Gym program, this approach requires long-term commitment by both parents and children if the individual programs are to be completed. No data is available to assess the 'drop-out' rate and no critique of this therapeutic method has yet been published.

#### The Dyslexia, Dyspraxia , Attention Disorder Treatment (DDAT) program

The founders of this therapeutic approach claim that children who suffer from dyslexia, dyspraxia or Attention Deficit Disorder (ADD) experience a significant improvement in their academic performance having followed an individual movement program. The approach is described as a 'revolutionary scientific breakthrough in treatment by the DDAT medical research team that means virtually everyone suffering from these symptoms can improve dramatically on our drug-free treatment.' The DDAT literature also claims that children experiencing their programs, 'are improving their reading ability by 67 per cent and their spelling by 42 per cent faster than the national average' (p 1). Professionals working at the centres propose that the 'root-cause' of dyslexia, dyspraxia and attention disorders is primarily physical and relates to under-developed cerebellar functioning. Children undergo a battery of scientific tests that relate to brain functioning and a personal exercise program is then developed.

Rack (2004) in his critique of the DDAT approach concludes that, 'there is no convincing evidence that the DDAT method produces the benefits that are claimed' (p16). To support this statement he re-evaluated the evidence of Reynolds et al. (2003) whose study had precipitated a fierce debate among practitioners working with dyslexics. Rack (2004) pointed out that the intervention and control groups who took part in this study were ill-matched from the outset and that of the thirty-five children involved



only nine had a formal diagnosis of specific difficulties. He accepted the evidence that the intervention group improved their eye-tracking ability and physical balancing skills and also performed better than the control group on three specific tasks namely, threading beads, the number of words that are read correctly in one minute, and the number of animals that are produced correctly in one minute. But, critically, no data was gained either pre or post-intervention on a standardised reading test which is a significant omission given that the DDAT approach claims specifically to improve literacy skills.

In common with the Brain Gym and Reflex Stimulation-Inhibition programs the evidence to support claims that the DDAT program alone may be responsible for improvement in cognitive functioning remains inconclusive. The children in the initial study were tested on the same activities that they were experiencing throughout the program which suggests that they may have become used to the procedure, more confident in performing and less stressed. There is as yet no conclusive evidence to support the claims of the DDAT organisation that their individual movement programs have a significant effect on the treatment of learning difficulties.

#### The Every Child A Winner (ECAW) program.

The 'Every Child A Winner' (ECAW) pre-school program designed by Rockett and Owens (1995 p3), 'Utilises the self-discovery method to introduce the following movement concepts: space, body effort and relationships. The ECAW program presents movement education through three mediums: educational dance, educational gymnastics and educational games.' Based on the teachings of Rudolph Laban, the program is designed to enhance critical thinking, problem-solving, self-discovery and basic fitness.

In Elliot's (1997) study which took place in Columbus, Ohio USA 48 children between 3.1 and 6.4 years (16 children presented disabilities including 10 with communication difficulties) were placed on a twenty-session movement program. These sessions were twenty minutes long and were delivered over four weekdays for five weeks. Results found that those participating increased their scores on the 'TCAM' (Thinking Creatively in Action and Movement, Torrance 1981) assessment significantly more so than the control groups, who were offered free play only throughout the four weeks. Motor creativity is defined as 'fluency' (focus on finding another way to perform a skill), 'flexibility' (making changes with ease), 'originality' (unusual, new or clever ideas) and 'elaboration' (details).

Elliot concluded that children with disabilities could benefit from learning through movement in an inclusive setting and the ECAW program could provide the means by which all children could fulfil their creative potential.

However, there were significant difficulties associated with the design of the study and the content of the sessions. Elliot (1997) did not use video data to support her claims for the children's development and the assessment procedure used pre and post intervention was neither rigorously analysed nor evaluated. A triangulation procedure to verify data was not implemented and it is not clear if the views of parents and staff were accounted for. The content of the program was also problematic. Elliot did not seek to enhance curricular or communication skills but the linguistic complexity of the instructions (considering the two youngest children with language difficulties were 3.5 years) make her findings interesting. The following extract is taken from the *introduction* to the first lesson of the third week of the movement intervention program.

**'Can you select a mat to work on? What does the word 'Monday' mean? Yes, it names the first day of the week. What day of the week is Friday? Today our signal to begin will be when you hear the word 'Monday', and the signal to stop moving will be when you hear the word 'Friday'. On the signal, can you make your bodies very straight in a low level on your mat. If I ran a paintbrush from the top of your head to your toes, I would paint a straight pathway. On the signal, can you travel from one end of the straight line taped on your mat to the other, creating a straight pathway in a low level.'**

Elliot (1997 p 110)

Elliot's sessions also involved a minimal element of skill progression or increase in physical challenge over the weeks. Each session was pitched at exactly the same level and there was no involvement by the staff in the setting to enable them to repeat activities independently at the close of the initial intervention.

### Project First Step

The 'Project First Step' program developed by Johnson (1996);

**'Is a program which supplies children in kindergarten through the third grade with movement experiences in the fundamental physical readiness skills. These skills were specifically designed to help children organise their bodies in order to increase their ability to achieve more academic success in the classroom setting.'**

(Johnson, 1996 p1)



The program was developed in Union City, Michigan, USA and funded by the Kellogg Foundation. It involved 110 children aged between 5 - 7 years who had been diagnosed by a screening tool as being at risk: this included low birth weight, physical abuse, substance addiction, low family income and family density. However, no control groups were used in the development or delivery of this program. Based on fundamental 'physical -readiness' skills, the children were given half-hour daily sessions throughout one school year. The structure of each session followed a four-step plan:

- (1) Introduce objectives for the week (balance, body image).
- (2) Warm-up/language development ('Lie down on the floor like a pencil. Think about a puppy as I describe it...').
- (3) Activity (toe touches, both sitting and standing. Skipping/hopping/balance beam).
- (4) Cool-down/language (think about larger dogs while they were described).

Johnson's results were impressive. Academic performance problems decreased by 68 per cent, there was a 50 per cent improvement in 'lining up numbers correctly', 84 per cent of the children had improved their physical -readiness skills (balance, coordination, body image, hand/eye coordination, laterality, tactile touch and audio-receptive and audio-expressive language), 50 per cent of the children had improved language skills, 64 per cent of those with behaviour problems had improved in this area, and 94 per cent of the children had attended the program throughout the year. Participating teachers attended two workshops and refined ideas to use independently. On-going contact was maintained with the parents throughout the year.

However, the pre-program *language* screening only sought to determine if the children were able to repeat the basic phonemes of the English language in the beginning, middle and ending position within words. Johnson's project was therefore inherently limited in terms of its impact on the communication skills of participating children that play a critical role in early language development. It was also an immensely expensive program to implement that required sixty sets of equipment including 20 parachutes and 150 foam mats.



On the positive side, this program included aspects that were not shared by the ECAW approach. The intervention stage was of one year's duration and parental and staff involvement was significant. Johnson produced frequent newsletters for both parties updating them on the children's progress and the teachers were actively encouraged to continue the program independently. On the negative side, in common with the ECAW program, there was a minimal element of progression built into the program which, considering the children were participating in the sessions for a year, is a significant omission.

### The 'Rhythmic Competency' Program

Weikart (1996) developed her 'Rhythmic Competency Program' on the basis of data collected by Kuhlman and Shweinhart (1992), who found that children's academic achievement was related to musical timing. Weikart's program was based on the concept of 'movement key experiences' that included 'steady beat independence', coordination, aural/visual processing, attending and concentrating, space awareness, language acquisition, creativity and problem-solving, planning and decision making, and energy and vitality. The three-tier structure of sessions started with the child initially, 'acting upon movement direction,' then 'moving in non-locomotor ways and with objects,' and finally 'expressing creativity in movement.'

In this study 189 children experienced the 'Rhythmic Competency' program for approximately ten minutes a week for three months. The control group of 169 children continued with their usual music sessions. The practical sessions for the intervention group were delivered by the children's music teachers who followed a very precise program related to Weikart's 'eight key experiences in movement.' The children were asked to follow movement directions, feel and express a beat and move with others to different genres of music. All the children in both groups were tested on the 'California Achievement Test' pre and post intervention. Those in the intervention group not only had improved their scores for rhythmic competency but had also increased their rating on the standard test by a significant degree.

The design of the study and the structure of the sessions were more effective than those developed by Johnson (1996) or Elliot (1997). Weikart was very specific as to her area of research and the precise instructions given to participating teachers made her program not difficult to deliver effectively. In contrast to the ECAW and Project First Step studies, Weikart was not playing the role of participant-

researcher. This enabled a greater volume of evidence to be collated which was not possible to accommodate in the design of the other programs. A triangulation method of validating evidence was implemented and through the use of two separate assessment procedures, Weikart found that a unique relationship may exist between rhythmic competency and academic achievement.

#### **2.4 Critical overview of intervention programs**

The evidence available to support the premise that therapeutic movement programs may have a significant effect on children's learning development is far from conclusive. The absence of critical evaluation or academic studies is inherently problematic and the three therapeutic programs discussed in this chapter remain on the fringes of mainstream practice without the full support of professionals working in the field that is necessary if they are to be accepted as suitable programs for children with learning difficulties. In contrast, the physical programs produced evidence that supported the premise that movement skills may have a significant effect both on attitudes to learning and the acquisition of curricular skills.

None of the studies related to the six programs reviewed provide unequivocal evidence to support the use of movement in promoting the development of language skills in young children. However, overall, they reported a positive effect on rhythmic competency, reading, spelling, comprehension, mathematical reasoning, motor-coordination, concentration and memory. Importantly, some of these studies reported changes in special groups. These positive findings provide some support for movement programs occupying significant space in the pre-school curriculum. However, further empirical testing of programs attempting to achieve this status is required.

The Medau intervention program therefore shared two significant similarities with the physical activity programs under discussion. First, a belief that movement skills play a profoundly important role in the development of learning skills and second, that movement skills support the development of children's learning potential. The Montessori teaching method will be discussed in the following section for two reasons. First, because of its roots in experiential learning and the importance of movement to development. Second, the EAL groups who participated in the study came from a Montessori nursery.



## 2.5 The Montessori teaching method

To Maria Montessori (d. 1952) education was not a process that could be ‘controlled’ by teachers, but was rather a ‘natural process’ that emerged spontaneously given the right conditions and environment. The teacher’s task is therefore not to *impart* information but to *prepare* an environment within which the child is motivated to explore. This approach to learning at first emphasises learning through all five senses, followed later by ‘education of the intellect.’ (Pollard 1990)

In her early observations of children’s engagement in practical activities, Montessori discovered an unexpected potential in children as they developed physical independence. She therefore created child-sized materials with which children could practise the daily activities performed by adults. Those she included were, planting, washing, sweeping, pouring, polishing, cleaning, dressing and mixing. Montessori named them ‘exercises of practical life.’ She noted that these activities affected the children in ways other than physical: their concentration improved, their social interaction within the classroom increased and they became more disciplined and self-controlled in their work. Montessori believed that activities relating to physical interaction with the environment provide a relevant and appropriate framework within which the intellectual, social and physical development of children may be enhanced;

‘Just as movement, the gymnastics of children is necessary because, as it is well-known, muscles which are not exercised become incapable of performing the variety of movements of which the muscular system is capable, so an analogous system of gymnastics is necessary to maintain the activity of the psychical life.’

Montessori (1965)

In this approach there is a very clear relationship between ‘thinking’ and ‘doing’ in which the emphasis is predominantly on ‘auto-education’. Children are never directly ‘taught’ anything that they may discover for themselves;

‘Children thus launched upon the enterprises of self-education acquire a remarkable sensibility as to their own internal needs. These children ask for help for new materials and new forms of work as soon as they have accomplished their mysterious phenomena of internal maturation and ask for them determinedly indicating their most immediate need.’

Montessori (1965)



Montessori believed that children develop through 'stages' and within each stage exist 'sensitive periods' when they are particularly 'open' to enhancing certain skills. From 0- 6 years is the stage of 'the creation of the ego.' Children are sensitive to language and development of the senses throughout this time but particularly to order between 1- 3 years, small objects between 1.5 - 2.5 years, movement at 2 -5 years, and social behaviour between 2.25 -5 years. The second stage, between 6-12 years, is concerned with the 'discovery of the world' and is the stage in which the greatest intellectual achievements occur. The final stage, between 12 -18 years is concerned with the 'emergence of the social self' in relation to the environment.

Sheridan (1993) identified significant problems concerning the implementation of the method in diverse settings. Montessori originally developed her method of teaching through long and close observation of disadvantaged children in their own communities. Until 2004, when the first Montessori school in the UK finally achieved government funded status, all Montessori schools were non-mainstream, costly to attend and considered elitest by practitioners working in mainstream settings. Montessorians have slowly but irrevocably drifted away from the original rationale for their existence, namely to assist children from challenging backgrounds develop their full learning potential. A second area of contention noted by Sheridan (1993) is the uneasy relationship between the different Montessori training organisations. Owing to an absence of copyright of the Montessori name, each association is able to produce its own training materials with impunity. There is no cross-referencing of these materials and no overall mentoring body to ensure consistency in the quality of training. The implementation of the method is thus heavily dependent on when, where and how teachers are trained. In addition, each association guards its reputation fiercely and productive criticism is actively discouraged.

At the heart of the contention lies a fundamental difference of opinion as to what the Montessori teaching method actually is. Should it be considered as a flexible educational method that is capable of adapting to different circumstances and changing environments, or is it fundamentally comprised of a set of specifications that must be rigorously applied come what may? Whatever route is taken by practitioners will profoundly influence the learning opportunities afforded to young children learning in a Montessori environment. (Willard 1996)

Of most relevance to this study is the Montessori attitude to language development and the use of apparatus to extend the understanding of abstract concepts. Despite the emphasis on multi-sensory autonomous learning that should provide ample opportunities for language development, these are ignored as the Montessori approach insists that ‘words must be few and counted and movements must be essential and economic’ when children are initiated into a new task. Literature suggests that for these children, strong contextualisation is a critical element in ensuring that this occurs without significant difficulty. By ignoring the learning potential of linking movement to language skills a vital source of language acquisition is compromised. The emphasis on self-direction also diminishes the opportunities for this group of children to rehearse new vocabulary in an immediate and meaningful way. In addition, group work is given a lower educational status than ‘solitary discovery’ and critical opportunities for language development are lost.

As the Montessori approach insists that apparatus should only ever be used for the purpose for which it was intended, this further diminishes the opportunities for young EAL children to develop essential interactive skills and to transfer these skills between environments. Chairs may only be sat on, carried, washed or polished. To use them to construct cars or fortresses is considered insupportable by Montessori practitioners. Thus, the imaginative play that most educationalists agree is of fundamental importance to children’s development, and which is so difficult for those who are interacting in a second language, is denied the opportunity to flourish, simply because of the rigidity of the implementation of primary principles.

The role of movement in the Montessori method is not significant despite Montessori’s original acknowledgement of its vital role in ensuring the smooth development of young children. Her emphasis on the necessity of effective outdoor apparatus and her appreciation of children’s absolute need to move permeates her writings. Whenever she used the word ‘activity’ movement is implied, yet Standing (1957) in his definitive work on the method fails to even mention the ‘sensitive period’ for movement. Most critical to this study in relation to the premise that learning through movement may provide an additional support for practitioners is the Montessori insistence on ‘order’ in every area of learning. As Standing (1957) writes;

**'In training her teachers, Dr Montessori insists again and again, not only on the right use of material but also on the teachers seeing to it that the whole environment of the child be kept scrupulously in order, with a place for everything and everything in its place. For it is from this order which he finds around him that the dawning order in the child's mind is strengthened.'**  
(Standing 1957 p36)

The difficulty with this principle is that it allows for minimal spontaneity either from the teachers or the children, encourages learning to be situation specific (home settings are rarely as orderly as Montessori classrooms) and does not promote the transfer of skills between environments; for example, how many children would choose to wash and polish a chair? All these components are of enormous importance to young children in the early stages of second language acquisition.

In contrast to the Steiner approach that positively encourages spontaneous reactions to changes in the weather or unexpected visitors and which makes significant use of the home cultures in which children grow up, the rigidity with which Montessori principles are frequently applied does not afford the teachers the independence and freedom to offer learning opportunities considered less significant by the 'system.' Classrooms may not be changed around because there are strict guidelines as to how they must be presented, the 'work-cycle' may not be interfered with and unless parents 'believe' in the principles the teachers feel undermined and undervalued. The rigid implementation of Montessori principles in certain settings compromises the development of language skills in young children with EAL. The specific learning conditions required by the approach and the stringent guidelines applied to apparatus result in the unsatisfactory accommodation of EAL children in this environment.

Anecdotal evidence suggests that the Montessori teaching method is currently in a state of significant contention. The on-going tension between disparate training bodies, the absence of a moderating panel to ensure consistency of quality and the enormous difficulties encountered in trying to implement the method in vastly diverse settings provide the backdrop against which the practical component of the study was delivered.



## **2.6 Summary**

The importance of children's physicality to their overall development has so far been undervalued by practitioners in England and Wales. Of particular importance to this study is the absence of awareness of this area in the current training of Speech and Language Therapists and Montessori professionals. The flexibility of the Medau teaching method offers support in this field without undermining other approaches and raises awareness of the critical importance of movement skills in children's overall development. The range of movement programs reviewed in this chapter do not yet provide conclusive evidence that they enhance learning development, but their growing prevalence does suggest an increasing awareness of the field. It is suggested that the Medau approach offers a means by which practitioners may include a movement element in their professional practice and thus enhance the curricular and communication skills of young children with SLI and EAL.

# **CHAPTER 3**

## **The Educational context of the study**

## **THE EDUCATIONAL CONTEXT OF THE STUDY**

### **3.0 Introduction**

This study was conducted within a climate of change and debate in the early-years field. The current arguments have profound implications for young children with SLI and EAL in educational settings. The Medau approach to learning should be viewed in the context of this debate and the current proposal that pre-school education should include a significant element of agency and empowerment for young children and their parents and carers. This chapter also considers the argument that the 'humanising' influence of education needs to regain status amongst professionals working in the early-years field.

### **3.1 Pre-school provision in England and Wales**

Education and care for children under 5 years in England and Wales are provided in a wide variety of settings and institutions (Lawlor 2002). These range from full time private day care centres, voluntary creches, workplace nurseries, childminders, playgroups and independent nursery schools, to publicly funded day nurseries, local authority nursery schools and reception classes in primary schools (Lawlor 2002). A national public funded system of day care and education does not exist prior to the advent of statutory education. Provision for this begins in England and Wales the term following a child's fifth birthday, but in practice many are in the primary system well before this time (Pascal and Bertram 1993).

Nationally, about 50 per cent of 3-year-olds and nearly all 4-year-olds are in some form of education; of these, 60 per cent are in the infant classes of State primary schools, 20 per cent are in the primary school nursery classes, 15 per cent attend private nurseries or voluntary pre-school playgroups, and the remaining 5 per cent are in the pre-prep departments of independent schools (Lawlor 2002). The number of under 5's in reception classes has increased by 40 per cent since 1992 and the percentage of 3 year olds attending infant classes has risen by more than 45 per cent since 1999 (Lawlor 2002). From the beginning of the term after their fourth birthday, all children are entitled to a Government-funded place (which may be in a private nursery) until the end of the term in which they turn 5. By 2004 the same entitlement is to be extended to every 3-year-old (Lawlor 2002).



In 2000 the QCA/DfEE produced a white paper entitled *'Investing In Our Future, Curriculum Guidance For The Foundation Stage.'* This was developed from the 'Desirable Outcomes' of 1996 and is organised into six 'areas of learning', these being: personal, social and emotional development; communication, language and literacy; mathematical development; knowledge and understanding of the world; physical development and creative development. It clearly states the intrinsic relationship between this stage and the national literacy and numeracy strategy that plays a significant role in later educational provision; 'The early learning goals are in line with the objectives in the frameworks for teaching literacy and mathematics, which should be taught throughout the reception year.'

All publicly funded settings are required to provide a curriculum that enables children to make progress towards the Government's 'principles, areas of learning and goals' of the 'Foundation Stage' of the National Curriculum that were introduced in September 2000. The 'guidelines' broadly define the progress expected of children at the end of the Foundation Stage as they enter Key Stage 1 of the National Curriculum.

The Government introduced a single, national scheme based on early learning goals that was implemented in September 2002. The reasoning behind the implementation of this new scheme was based on the premise that the 'results' would establish a 'baseline' against which the progress of children through Key Stage 1 may be assessed and the 'value' that the primary school adds during the reception year may be measured (Lawlor, 2002). As a caveat to this scheme it should not be forgotten that the goals set out in the original 'Desirable Outcomes for Children's Learning' (SCAA 1996) were adopted by many providers caring for 2 and 3 year olds because they determined the criteria on which inspections of all early years settings are based. Many 4-year-olds in reception classes have similarly been affected by the goals laid out for Key Stage 1 of the National Curriculum (Whitehead 1999).

Although, in theory, Key Stage 1 of the National Curriculum applies to children who have completed the reception year and are aged six, the difference between those with winter and summer birthdays, the problems of large class numbers or very small numbers of children in rural schools and the movement of children between private and voluntary care and education means that many children experience less than one year in a reception class and may be admitted to their next stage of schooling without adequate

preparation and support (Lawlor 2002). The majority of children start school in the September term yet only 13 per cent are actually five years old. Only 10 per cent of children enter school in the January term and even fewer (5 per cent) start in the April term (Tymms 2002).

There is no standard assessment that is currently available to determine the 'readiness' of children to join their reception classes. However, Nagy (1989) has studied the relationship between early years educational provision and compulsory schooling for many years and firmly believes that the primary aim of pre-school education should be to reduce the 'pupil variation' that is often present in classes either through developmental differences or delay, or is cognitive or social in origin. He proposes that an integrated approach to education be adopted that acknowledges the physical and intellectual preparation of children for formal education.

In contrast to England and Wales, in 1986 Hungary introduced an 'alternative entry model' to the start of formal education. This requires that children be registered to begin their schooling not according to the calendar age of 6 years but at a suitable time that relates to their stage of development in all domains. Each year approximately 20-30 per cent of children eligible to begin in the first grade experience another year in kindergarten. Those who are not yet 6 but are assessed as being at a developmentally appropriate level are accepted. Thus the variations of age and ability frequently encountered in UK classrooms are avoided. Despite these precautions, Nagy's evidence suggests that more than 50 percent of children entering school in Hungary at 6 years old have not yet developed an adequate level of competency to ensure the successful acquisition of literacy (Nagy, 1989).

### **3.2 International pre-school educational provision**

Statutory educational provision begins in Sweden at 7 years, although an option is available (yet rarely accepted) for children to start at age 6. High quality, state-funded pre-school provision is available for all children over the age of one year. The emphasis in Swedish pre-school settings is on overall child development and care, with outdoor play featuring particularly strongly. Providers and parents in this country agree that an over-concentration on cognitive skills before age 7 is counterproductive. Once Swedish children enter formal schooling a more subject-based curriculum predominates, but the minimal



number of Government guidelines may be interpreted individually and tailored to suit the particular needs of each school (Pascal and Bertram 1993).

In 1990 Spain introduced a radical reform of their education system and *all* children are now included. Compulsory education begins at age 6, and guidelines for educational provision previous to this time are, as in Sweden, general in tone. Usually, the younger the child the greater the flexibility of the timetable and the less academic the curriculum (Pelacios, 1989). Similarly, Denmark does not start the process of formal learning until the age of 6 or 7 years, and reading is not taught until 8 years. Children are given the freedom and encouragement to explore, construct and interact and enhance their confidence to create their own reading and writing materials in a 'developmentally appropriate manner' (Hannaford, 1995).

Meanwhile, Japanese pre-schools emphasise cooperation, kindness and collaboration in preparation for children to become 'social people' when they start formal schooling at 6 years old. The Japanese curriculum recognises the importance of maintaining and imparting cultural values and emphasises the importance of familial support. Standards are set for each year of schooling and help is continually available to encourage children to meet these targets (David 1998).

The Swiss pre-school system is based on three fundamental principles: there is a balance between play and learning, a flexible system of school entry is promoted and the emotional security provided by the home environment is respected and supported (Lawlor, 2002). The primary emphasis in Swiss kindergartens is on a carefully graduated extension of core 'learning skills', namely, memory, vocabulary, social capability and visual and aural discrimination. By laying down these 'foundation' skills in a thorough yet measured manner, Prais et al. (2002) suggest that 'rapid learning by the whole class may be enhanced.' In their study of early literacy in Slovenia, Kavkler et al. (2000) also emphasised the importance of an holistic approach to pre-school education and the relevance of developing skills that *relate* to the teaching of literacy;

'As well as attention, listening and memory skill training necessary to participate in an oral linguistic approach to learning, children are taught cooperative group behaviour, phonological awareness and motor skills regarded as essential preparation for reading and writing as well as conceptual understanding of space, size, quantity and time in relation to later mathematical understanding.'  
(Kavkler, 2000, p79)



The common goal for these curricula is the effective *preparation* of children across all developmental domains to ensure a seamless transition from pre-school settings to more formal educational provision. As David (1998) observed;

‘Children are learning through play; they engage in movement, singing and music. Relevant everyday activities such as growing plants from seed provide the major vehicles for learning. Rather than a curriculum divided into sessions according to the disciplines accorded status, young children are encouraged to learn holistically.’  
(David, 1998, p13)

The stated intention that the ‘Foundation Stage’ guidelines are to be more closely related to the demands of the National Literacy and Numeracy strategy, the prevalence of a one-term entry system and a significant level of political intervention, combine to ensure that pre-school provision for young children in England and Wales is not in alignment with the fundamental early years educational principles adhered to in many other countries. Whitehead (1999) cautions that;

‘We have to be open and flexible and ready to learn about alternative ways of approaching the early education of our youngest citizens, particularly at this time when increasingly narrow and centralised strategies are being imposed at all levels of education.’  
(Whitehead, 1999,p128)

### **3.3 Educational issues within Early-Learning in England and Wales**

The philosophy of ‘positive delay’ and an holistic approach to learning are widely accepted and valued in many countries, yet it translates in England and Wales into a bitter debate between child-centred *versus* fixed-program learning, and a holistic *versus* segregated approach. To many UK academics (Ball 1994, Whitehead 1999, Gammage 1999), educational strategies promoted by the government are ‘linear, goal-oriented and pre-specified’ and have a profoundly negative effect on early educational experience because they do not account for the natural development of children and the necessity for play.

In contrast, another faction believes that the Government guidelines are not stringent enough and that the answer to ‘raising standards’ is a return to ‘traditional’ methods of teaching and rigorous methods of summative assessment. As Woodhead (2001) writes; ‘The introduction of baseline assessment and early learning goals ought to bring a new and much needed rigour to early years education.’

As a body of influential educators they clearly demonstrate the presence of an ‘atmosphere of derision’ that exists in early years education and a lack of mutual agreement as to the constitution of ‘first principles’. Clare (2001) writes; ‘The ‘play comes first’ camp, supported, alas, by the great majority of early learning professionals dominates provision in the state sector’ (Clare 2001). Woodhead (2001) concurs;

‘Our national propensity to coo contentedly at the prospect of happy infants in the sandpit means that their arguments are taken more seriously than they perhaps deserve. (They think that)...autonomy is all. Children must be allowed to determine their own program of activities. To attempt to actually *teach* them is necessarily to stunt their social, intellectual and emotional growth. Treat the nostrums of experts with caution. Commonsense can cut through many of the controversies that excite the professionals.’  
(Woodhead, 2002, p72)

The damaging distinctions between progressive and formal education, creativity and academic skills, and imagination and intelligence continues to fuel the simmering resentment between the supporters of opposing views of the purpose, principles and practice of early education. As a ‘voice of reason’, Lawlor (2002) recommends that the following steps should be taken to resolve the current crisis;

‘This country should reconsider the trend to an official national foundation curriculum. In the absence of any substantive agreement about the aims and content of pre-school curriculum, schools should have greater flexibility in judging the most suitable curriculum for children. This should allow greater diversity so that parents have proper choice of what is best and schools can teach reading and writing when children are ready.’  
(Lawlor, 2002, p 81)

Pascal (2003) makes an impassioned plea for both practitioners and children to become more ‘empowered’ in the learning process and for the wider political framework in which they operate to be acknowledged and embraced. The rapidly changing environment in which young children learn must be faced fearlessly and she urges that professionals should be encouraged to critique the growing demands by government for ‘accountability’ and the prevalence of dubious performance targets. Pascal (2003) writes that;

‘The pressure to over-formalise and narrow the focus of early learning is a real challenge. Yet the opportunity to put in place for our children a broad-based and high quality learning environment which sustains well-being and ‘agency’ is a real possibility.’  
(Pascal, 2003 p 12)

Pascal (2003) also suggests that the concept of 'social solidarity' has been largely ignored by the political agenda of early years education and that innovators in this field must, 'focus more explicitly on developing a sense of 'connectedness', togetherness, belonging and inclusion of young children' (p14). This radical approach accommodates the cultural environment in which children learn and the ways in which this, 'shapes the mind and provides us with the toolkit by which we construct not only our worlds but our very conceptions of ourselves' (Bruner,1996p,25). Pascal (2003) recognises that the emotional well-being of young children is a critical component of early learning experience and proposes a blueprint for the 'effective early learner' that includes qualities of emotional literacy, empowerment, positive self-esteem, independence, creativity and resilience, vocabulary that is rarely if ever used in centrally dictated guidelines.

Finally, Pascal (2003) states that it is 'time to move on' from a purely cognitive view of early childhood and adopt a 'more humanising approach' that 'acknowledges the socio-cultural elements of early learning and sets childhood in a wider social context' (p 27). The importance of developing socially and emotionally competent children is, for Pascal, the vital missing link in current early years thinking. Unless and until this area of development becomes a priority the consequences for society at large will be profoundly negative.

### **3.4 International Educational Issues within Early-Learning**

The current tensions in England and Wales between the promotion of 'play-based' learning that respects the natural development of the child and more formal approaches to education must be acknowledged, but far from being peculiar to England and Wales it is mirrored in the differing curricula that are implemented in other countries.

In Norway the primary aim of early education is the optimal development of the 'whole' child, whereas in France there is an increasing tendency to enrol 2-year-olds in pre-school settings on the basis that this may enhance later academic success. The curriculum in Russia meanwhile is focused on the 'humanisation of the rearing process through orientation to a child's personality.' The main objective in this model is to 'assist in the process of individuality.' Poland has also made optimising personal development a fundamental principle of pre-school settings, and the introduction of systematic teaching is



vigorously resisted (Cochran 1995). Within a cross-cultural study, Tobin et al. (1989) found significant differences in attitude to essential pre-school skills in Japan, China and the USA. In Japan, listening skills and empathy with others was emphasised whereas in the USA academic skills were considered the most important. Parents were of the opinion that the purpose of early education was to prepare children for competition at school, learn to behave, follow instructions and develop self-reliance and self-confidence. For the Chinese, cooperation and learning how to be a member of a group were considered to be the most useful skills to be learned in pre-school.

Ojala (2000), in a comparative study between Finland and Ireland, has evidence to suggest that the level of significance given to pre-academic skills may be deeply related to culture-specific factors such as child-rearing practices and government policy. In Finland, where teachers are trained to work both as educators and care-workers in flexible and child-centred environments, the core curriculum for the education of pre-schoolers is developed without the intention of starting formal learning. In contrast, children in Ireland are expected to be educated between 4 to 6 years in national schools and an early start to formal learning is promoted. Cochran (1995 p65) acknowledges the evident tension between different approaches to early learning experiences and cautions the following; 'A more systematic, cross-national discussion and investigation of the relationships between early child development and school readiness is needed, and would contribute to the resolution of the growing tension between these goals in various countries.'

David (1998 p15) also acknowledges the on-going debate surrounding the fundamental principles of various international curricula and (as does Pascal) emphasises the influence of early years pedagogy on society as a whole;

'We have to decide, through public debate, what kind of society we want (democratic, open, just?) and what kind of children we want (caring, thoughtful, articulate, independent?). We must promote debates in which childhoods, those actually lived by children today and those we imagine, are deconstructed and reconstructed and then we must ensure children have access to the human and material resources they need.'

The practical stage of the movement intervention study was thus delivered against a background of intense debate as to the purpose and nature of early years education. The long-term effect of children's early educational experiences should not be underestimated.

### **3.5 The long-term effects of early childhood education**

Nabuco and Sylva (1996), in their comparative study of the effect of three different curricula on young Portuguese children produced evidence to suggest that, in the long term, a too formal start to early education may have a negative impact on the social and intellectual development of young children. Heath (1997) also has evidence to support these findings and suggests that an early years curriculum that concentrates on literature and the humanities may have a positive impact on later academic success. Weikart et al. (1986) in their longitudinal study compared the long-term effects of three different pre-school curricula on children up to the age of 15. At this age, children who had experienced a formal pre-school curriculum were assessed to engage in more antisocial behaviour and had a lower commitment to school than those who attended the two play-based programs. Young children who had experienced 'active learning' before formal schooling had retained the advantages of their particular early education. Schweinhart et al. (1993) in their longitudinal study of children from 3 - 27 years also concluded that the benefits of a less formal start to education persist in the social, community and economic outcomes in adulthood. Blatchford and Plewis (1990) suggest that a close relationship may exist between pre-school reading-related skills and later reading achievement.

Kavkler et al. (2000) in their study contrasted the difference in children's pre-school mathematical experience in Slovenia and England. In Slovenia, mathematics remains a 'high status' subject until the age of 19, when children finish secondary school. Children start formal schooling at 6 years and their pre-school mathematical experience emphasises counting, reasoning and verbal recall using concrete materials that enhance verbal counting strategies. The understanding of patterns and relationships and easy use of whole number facts is considered the most effective way to give all children a basic grounding in mathematical thinking. Written recording of number is delayed until aged 7. In contrast, the guidelines for young children in England and Wales that relate to the teaching of mathematics places much greater emphasis on the acquisition of written calculations and the two-dimensional formation of numbers rather than on the ability to use whole number facts and basic numerical procedures.

The evidence from Kavkler's (2000) study suggests that at age 6 English pupils (who start school between eighteen months to two years earlier) are more competent than the pre-schoolers in Slovenia in their use

of basic arithmetic. At age 7 no significant differences were observed between the two groups, and by 8 years the Slovenian children proved to be significantly more able in their use and recall of mathematical concepts. On a standardised arithmetic test (The British Ability Scales) English pupils scored higher at 6 years but the minimal difference between mental calculation tasks also showed that by the end of the Slovene children's first year at school there was little difference in accuracy between the two groups. Furthermore, unlike the English group, the Slovene children were beginning to use 'recall of fact strategies.'

The conclusion reached by Kavkler and her colleagues was that the English system of teaching formal mathematical skills at an early age may take too little account of the differences between children and their rate of development at school entry. Their evidence suggests that this may well be a determining factor in future mathematical achievement.

Ball (1994) also suggests that the effects of a high quality, informal approach to early education may persist into adulthood. Barrett (1986), Bennett and Kell (1989) and Sherman (1996) suggest that 'alienation' from schooling and 'all things educational' may begin in the very first days and weeks of nursery school. Their evidence highlights the danger of lack of individual attention, the failure of some teachers to correctly assess the needs of young children and the demands of a curriculum that may not adequately accommodate children's active involvement in the learning process. Riley (1996) and Weinberger (1996) highlight the necessity for a careful start to formal schooling if ingrained negative attitudes are not to be formed at this early stage. Rutter (1985) when reviewing the available literature on the effects of pre-school education on children's long-term development concluded that; 'The long-term educational benefits stem not from what children are specifically *taught* but from effects on children's attitudes to learning, on their self-esteem and their task orientation.' Sylva, (1996) writing some years later concluded that;

'The most important impact of early education appears to be children's aspirations, motivations and school commitment. These are moulded by experiences in the pre-school classroom, which enable children to enter school with a positive outlook and begin a school career of commitment and social responsibility.'  
(Sylva, 1996, p32)



### **3.6 Early years assessment procedures**

The concept of assessment is intimately related to developmental theories and the ways in which they are accommodated by professionals in their training and practice. The specific 'stages' of development as proposed by Steiner, Froebel, Piaget and Montessori rely ultimately on an acceptance of orderly, predictable development across all domains of development. They do not, however, account for individual variability or the many ways in which different aspects both influence and are influenced by each other. As Lindsay and Desforges (1998) point out an acceptance of the concept of continuity is critical to the rationale for baseline, value-added assessment procedures. The difficulty with this is that it cannot be assumed that environmental variables will remain stable in a climate of increasing social fragmentation.

A major issue that confronts early years practitioners is the rationale for the implementation of assessment procedures. Historically, these tests were designed to identify children with special needs and to assist practitioners to devise individual educational schemes. They were essentially 'formative' in nature in that they were structured primarily to support teaching practice. The major difficulty with this approach in the current climate is that a significant degree of contention has emerged relating to the fundamental purpose of assessment procedures. Do they exist in order to identify the needs of children and assist practitioners? Are they a means by which settings can justify future budgeting decisions? Or are they simply a means by which government agencies can justify policies on the basis of statistics – an essentially 'summative' approach to the field?

In September 1998 it became compulsory for all children in England to undertake a 'baseline' test to assess levels of literacy and, frequently, numeracy, within the first seven weeks of their initial term in the reception year. Despite a national education strategy being implemented at the time, ninety-one local assessment procedures were validated for use by the QCA and a significant variation in the standard of performance expected by the children was noted. As Lindsay and Desforges (1998) stated in their overview of assessment procedures available at this time, no requirement was included to provide any evidence of 'technical quality'. In addition, the range of the procedures accepted by the QCA, 'removes

the possibility of any comparison of value-added nationally, which seems a curious confusion of aims and operations.’ (p. 15)

Between February-July 2000 Lindsay and Lewis (2003) conducted a comprehensive survey relating to the efficacy of available baseline assessments. One hundred and two Local Education Authorities responded to their questionnaire and 982 schools were also involved. At this stage they concluded that the assessment procedures were viewed positively but significant problems still remained concerning differences of opinion between educational practitioners as to the precise *aims* of these procedures. In addition, there was continuing debate regarding the possibility of a nationalised baseline assessment scheme that would be more complementary to the National Curriculum.

The timing of the assessment procedures was a critical factor for both teachers and education officials and had a significant impact on their differing views as to their purpose. The Head Teachers replied overwhelmingly that the baseline assessments they used should be implemented within the first week, or if possible, on the first day of the children’s arrival in reception. The children’s scores would therefore reflect a ‘true’ baseline and could then be used to determine current levels of development and assess change over time. Lindsay and Lewis (2003) describe this approach to assessment as ‘managerial’. This approach related to, ‘school management and accountability and included focus on children’s progress as judged by the gains made by each child at say, end of Key Stage 1 compared with the level at school entry as estimated by baseline assessment’ (p 166).

In contrast, the teachers were more supportive of a ‘pedagogic’ approach to assessment. Information on the children could be collected on several occasions over some weeks and used in a formative manner to determine suitable teaching tasks and methods. Using this approach it would then be possible to identify individuals with SEN or developmental difficulties. Interestingly, at this stage, both Head Teachers and teachers felt that a single national baseline scheme should be introduced. This would ensure that schools with a predominantly shifting population would have a standard record of each child. It would also iron out the significant differences noted between similar tasks included in the various assessments. However, the Local Education Authorities involved in this study were generally not supportive of a national baseline scheme. They reported that if this happened all their previous data would become obsolete and

that the schemes they used had been chosen to suit their own particular children and situations. Also, they reported that the prospect of parents preparing their children for assessment may become problematic if a national scheme were adopted.

Lindsay and Lewis (2003) concluded that, 'The indications are that the baseline assessment's main purpose will be child-focused, formative and pedagogic, and include specifically the early identification of SEN linking to the revised Code of Practise. The use of baseline assessment for value-added analyses has been relegated, although not removed from the policy agenda.' They also concluded that although baseline assessments may survive as school entry assessments, their lack of statutory basis could undermine teacher's willingness to use them as this would require two assessments during the reception class.

The 'Performance Indicators in Primary Schools' (PIPS) program was just one of the assessment procedures accepted by the QCA. Developed at Durham University it was originally conceived as a means to assess the mathematical progress of children in year six. The reception year version was formulated to provide a firm baseline against which the progress of children could be traced throughout the year. The test was divided into two sections (early reading skills and early maths skills) and each pupil was assessed individually for fifteen minutes within the first few weeks of entering reception. No mention was made of personal and social development and what is most pertinent to this study is that physical development was omitted.

The tasks included in the children's booklet are visually and linguistically complex. As an example, on page sixteen the child is asked to show the teacher 'where a sentence finishes.' On page forty-two the child is asked, 'Here are some ice-creams; if I took three away how many would I have left?' Without previous experience of this specific vocabulary the children would not be able to achieve a satisfactory result. The possibility that teachers may prepare children for this test in order to improve their scores should not be discounted.

The 'Linguistic Awareness in Reading-Readiness' (LARR) test was developed in Canada in the 1980's. The rationale behind this procedure is that; 'the learner must understand the purpose of the skill to be



acquired and must grasp the concepts that are used for talking and thinking about how to perform the skill' (p 1). The test focuses solely on reading and writing skills and seeks to acquire, 'reliable baseline information which might be compared later with other measures of performance to show the progress that has been made' (p 1). The test is usually undertaken by small groups of children who circle their answers in individual booklets. Nineteen questions are included that relate to the recognition of reading material in various forms, places in which reading and writing take place and the understanding of basic technical terms associated with reading. The language used is clear, simple and consistent and the marking scheme is not challenging to implement.

These two assessment procedures are currently used in a wide variety of settings although the level of comprehension and skill required for their successful completion varies widely. All children are required to be reassessed on the same procedures during the final seven weeks of their time in reception. The scores they achieve at the beginning and end of the year are then compared and each child is given a 'progress score.'

In June 2002, the QCA revealed that the original baseline assessments were to be superseded on a national basis by a 'Foundation Stage Profile.' In 2004 it became a legal requirement that all five year olds in state-maintained settings would be assessed using this scheme. The procedure is entirely based on teacher observation of individual children throughout the reception year and addresses the areas of development stipulated in the guidelines of the Foundation Stage Curriculum. Special educational needs are included as are the particular requirements of children with EAL.

Practically the 'Foundation Profile' has been difficult to implement effectively. Poor press coverage of initial statistics, the increased workload for teachers and the problems they encountered in understanding the complex marking system have all led to a period of severe 'teething-difficulty.' As an example; in Lancashire it was revealed that a very high score of nine was common. By this calculation over 90 per cent of the children were predicted to achieve a level three at Key stage 1 which is an unlikely outcome. Teachers in this county are currently opting to use 'class record sheets' to minimise the time required to assess each child individually or are using the computerised 'E-profile- system' that is also less time consuming. Lancashire LEA also revealed that over 98 per cent of schools in the county are still using the

PIPS assessment procedure because of its easy marking scheme. In addition, over 40 settings in Birmingham (out of a possible 295) are using the PIPS procedure despite being actively discouraged by letter from doing so.

The two main issues for practitioners related to the 'Foundation Profile' assessment procedure are first, the confusion surrounding the moderating process and second, that despite the procedure being formative in approach the use of statistics gives it the potential to be used centrally in a summative manner – precisely what practitioners assumed was being avoided.

Of most relevance to this study is the decision by Lancashire LEA in 2003 to adapt the 'Foundation Profile' to suit pre-school children between 3-4 years old. It has been designed to provide a record for reception teachers and clearly works toward the 'stepping-stones' of the Foundation Stage of the curriculum. It is a non-statutory procedure that is freely available to interested professionals. As a means of providing essential information to reception teachers who often have minimal knowledge of the children prior to their arrival, it has the potential to be adopted as a nationwide scheme in the future.

The fundamental difference in approach between formative and summative forms of assessment is of critical importance to practitioners. The current confusion surrounding the implementation of the profiling procedure must be clarified in order that teachers understand the rationale for its use and act accordingly. The holistic nature of the profiling assessment procedure reflects the issues involved in delivering a 'developmentally appropriate curriculum.'

### **3.7 A 'Developmentally Appropriate Curriculum'**

Blenkin and Kelly (1994) defined a 'Developmentally Appropriate Curriculum' (DAC), or 'Developmentally Appropriate Practice' (DAP) for young children in the following way;

'Such an education would be characterised by the provision of developmentally appropriate activities with an emphasis on processes and not simply products or content, a holistic approach that considers the cognitive, affective and psychomotor development of the child and not mere acquisition of knowledge.'  
(Blenkin and Kelly 1994, p111)

Hurst and Joseph (1998) concur that; 'Education should be shaped in accord with the learner's stage of development and the knowledge and interests which have emanated from their experiences within the home and the community.' The US National Association for the Education of Young Children (NAEYC), includes the following as its 'position statement;'

'Teachers use 'developmentally appropriate' practices with their children when they provide them with a rich environment full of concrete and interesting materials to explore (and learn by doing); when they stimulate learning in all developmental areas and when they take into account the uniqueness of the children, their age, stage of development and interests.'

NAEYC (1986)

In contrast, 'developmentally inappropriate' practice is characterised by teachers who offer their pupils 'teacher-directed' activities that stress academics and focus on intellectual development. This is manifested in 'worksheets, rote learning and the over-use of text books'. The individuality of children is not accommodated and the assessment process is 'essentially formative.' Rodger (1995) concurs with the principles of a 'developmentally appropriate' approach to learning but extends this philosophy to accommodate a 'transmission *versus* transformation' model;

'The transmission model of the curriculum identifies the important knowledge, skills and understandings about society which children need to learn, and then teaches five ways of transmitting such understandings to children. In contrast, the transformation model suggests that teachers provide learning experiences, evidence and materials which might help the children reconstruct or interpret (transform) these in the light of their own experience, judgments and discussion.'

(Rodger,1995,p37)

Intimately related to the debate on 'appropriate' or 'inappropriate' practice is the contrast between 'performance' or 'mastery' goals in educational settings. Sylva and Wiltshire (1993) describes the diverse approaches thus;

'Performance goals focus the student on judgements of ability and set in motion cognitive and effective processes that make the child vulnerable to maladaptive behaviour patterns. Learning goals create a focus on increasing ability and put into action cognitive and effective processes that promote adaptive seeking of challenge, persistence in the face of difficulty and sustained performance. These two differing goals underlie differing aspects and behaviours in a variety of school-like tasks.'

(Sylva and Wiltshire 1993, p34)

Healy (1998) describes 'learning oriented' pupils as being motivated by interesting material and the desire to improve themselves. They develop into 'lifelong learners' and may adapt without difficulty to new



methods and technologies in order to engage in the creative process. 'Goal oriented' pupils in contrast are more concerned with getting the 'right' answers, 'winning' and avoiding situations in which failure may be a possibility. They tend to give up easily if tasks become too challenging and frequently experience anxiety and lack of confidence. The following alternative curricula fundamentally believe in the development of 'lifelong learners' who are fully able to partake in a wide range of educational experiences.

### **3.8 Alternative curricula**

#### High/Scope

The 'Perry Pre-School Project', which later became known as 'High/Scope' based its teaching approach on 'sound Piagetian principles' and involves classroom activities that relate to seriation, classification and conservation. (Sylva 1993). Also, taking inspiration from Vygotsky, conversational tasks between adult and child and child and child are emphasised. A fundamental principle of the current 'High/Scope' curriculum is the work cycle of 'plan, do, review'. In small groups, each child is encouraged to 'plan' the day's activities in a session called 'worktime'. Having planned their work, the children go to a previously defined area within the classroom from which they act on their plans. When all the children have finished their work the whole group reassembles and individuals take turns to review the outcome of their plans.

Central to this approach is the significant role played by attending adults. The planning and reviewing components take place in conversation with adults and these interactions determine the way language is used to plan the action in 'worktime' and to monitor and evaluate outcomes during the 'reviewing' session. Sylva (1993) concludes that by adopting this approach to learning; 'Children learn to be self-critical without shame, to set high goals while seeking objective feedback on their plans. There is also encouragement to develop persistence in the face of failure and calm acceptance of errors or misjudgment. Today's feedback informs tomorrow's plan.'

This curriculum also includes a comprehensive training scheme for teachers and relies for its successful implementation on a significant level of parental participation. It has been carefully monitored and

evaluated over thirty years and Berrueta-Clement et al. (1984) have evidence to suggest that the experience of this program has a positive and lifelong effect on young children. In their study significant differences in achievement and motivation were found between 64 children who had experienced the program daily for 2 years and the control group of 58 children who had stayed at home.

### 'HOREB'

The HOREB ('Activity oriented observation, registration and evaluation of basic development') educational model is based on Vygotskian principles. This teaching method has been elaborated into a curriculum strategy for early years setting in the Netherlands. In this approach the teacher must: a) allow children to participate in relevant cultural activities, b) encourage pupils to be actively involved in their own learning activities, c) offer activities that make sense to pupils, d) become a partner with the children in their development, and e) emphasise broad development as the optimal educational goal (Janssen -Vos et al. 1998);

'The process of continuing and renewing relevant meanings occurs in a 'negotiation of meaning' between the participants in an activity. It is a process of collaborative meaning construction, in which heterogeneity is needed and discourse is essential. Within this process, learning is seen as an expansion of an activity, based on the acquisition of new actions in the context of the cultural activity. Education is an attempt to build up joint activities which also provide a context for acquiring significant knowledge and skills.'

(Fijma, 2000 p 2)

'Progress' in this model of learning is determined by an observation strategy based on the idea of 'continuous guidance in meaningful activity settings' (Janssen-Vos 1997). The 'HOREB' model supports this principle in three ways. First, the teacher uses a 'book of activities' which offers ideas and means for designing and planning sessions. Second, a log-book is used in which plans for activities and subsequent reviews are recorded. Third, the teacher completes a 'children's diary' in which data is categorised to show each child's developmental steps and which may be used to evaluate developmental progress. There are also 'observation models' that may be followed in order for activities to be developed further. In this dynamic model of education the assessment strategy is designed in order to accomplish qualitative evaluation of learning and development. It takes 'both the social and cultural factors surrounding individual learning and the interactions involved into account' (Shiferli 2000, p2). This approach to assessment is, however, immensely time consuming and difficult to implement with large numbers of

children. The rationale behind it is to be admired but the problems already experienced by practitioners surrounding the effective delivery of the 'Profiling' system results in there being not much of relevance to current educational practice in England and Wales.

### 'EXE'

The 'Experiential Education' (EXE) model was developed in Belgium in the 1970s (Laevers 1993). The foundation of this particular approach is the 'experiential attitude of the teacher' and that the child's experience is considered to be the 'central point of reference'. Gendlin (1964) defined 'experience' as being 'the process of concrete bodily feeling which constitutes the basis matter of psychological and personality phenomena.' In the 'EXE' model the teacher must create the most suitable learning conditions within which each child can take initiatives and choose activities that 'meet his emotional, motoric, social and cognitive need' (Laevers 1993). Within this enriched environment there are 'moments in mind' when the teacher is 'involved in dialogue or sustains activity by giving stimulating impulses' (Laevers 1993).

Teachers who subscribe to this model are seeking to effect development in children's 'therapeutic processes' (emotional health and positive self-concept) and 'creative processes' (forming new ways of understanding). The ideal outcome is the 'emancipated person' who is free from 'irrational or emotional complexes and possessing a strong exploratory attitude, an open mind and the sensitivity that leads to commitment or engagement'. Laevers (1993) proposes that in order to assess children's progress over time a new scale should be utilised based on the concept of 'involvement.' This is defined as being; 'A quality of human activity, characterised by concentration and persistence, a high level of motivation, intense perceptions and experiencing of meaning, a strong flow of energy, a high degree of satisfaction, and based on the exploratory drive and basic development of schemes.'

Laevers (1993) also considers that 'interesting, meaningful and absorbing' activities enhance children's understanding and use of concepts. This progression is considered to be 'predetermined and unidirectional';

'Of course the developmental process cannot be seen as one overall evolution. The fundamental changes only occur in the domains represented in the activities in which



children are involved. Hence the concern for an elaboration of a rich environment in terms of broadness (all important fields of development should be present) and in terms of ranges of complexity. Further, it is obvious that the predetermined character of developmental stages does not mean children can grow up by themselves. The maintenance of intense activity requires the highest educational competence of adults.' (Laevers, 1993, p61)

Laevens (1993) also favours the development of 'learning' tests that do not concentrate on 'accumulated knowledge' but try to assess the competence of a child by observing the ability to 'assimilate new information.' However, significant flaws have been noted in relation to the concept of 'involvement' and the challenging structure of the 'observation models' for assessment purposes. It has been pointed out to Laevens that young children working in an illegal 'sweat-shop' would seem to be completely 'involved' in their task on the basis of observational evidence alone. Yet how is their experience of 'involvement' in that setting to be differentiated from that of a child experiencing the 'EXE' curriculum? The structure of the assessment procedure is also problematic and reflects the difficulties noted by teachers in relation to the 'Profiling' procedure. In both cases judgement of progress is entirely subjective and dependent on the observational skills of the professional involved. In both cases no guidance is given as to *how* to observe children which results in teachers concentrating on areas of development they favour and ignoring those about which they have lesser knowledge. This is a significant difficulty that has yet to be addressed satisfactorily in both cases.

### 'Project Spectrum'

Gardner (1991), drew on his initial research into 'multiple intelligences' to develop a model of learning named 'Project Spectrum' (Gardner 1991). He proposed that seven types of 'intelligence' exist: logical/mathematical, linguistic, visual, spatial, bodily/kinesthetic, musical and interpersonal/intrapersonal. In 1997 he added another type of 'naturalistic' intelligence that relates to the ability to recognise important distinctions in the natural world. Gardner proposes that by adopting a model of learning based on 'intelligences' the 'fundamental capabilities' of children may be assessed more effectively.

Pilot studies for his project confirmed his belief that pre-school children possess personal configurations and distinctive sets of 'intelligences.' Project Spectrum developed from a means of assessing children's

strengths to the promotion of a 'rounded educational environment'. In 'Spectrum' classrooms children are surrounded by 'rich and engaging materials that are designed to enhance the use of a range of intelligences'. There is a 'storytelling' area where pupils may create imaginative tales using props and storyboards, a 'nature' corner where various biological specimens are displayed for pupils to examine and a 'building' corner in which pupils are encouraged to construct models and design collages.

In collaboration with classroom teachers, curriculum materials have been developed in the form of 'theme-related kits' that draw on a range of 'intelligences'. Close relationships have also been formed with local museums and learning 'kits' prepared that may be used both at home and in school. Spectrum also fosters a close relationship between school and the community by use of a 'mentoring' program in which young children are given the opportunity to spend time with adults in the community, who exemplify different combinations of 'intelligences' in their working lives. The assessment of children is ongoing throughout the year and is summarised in a document called the 'Spectrum Report'. This describes each child's personal 'profile' of strengths and weaknesses and offers specific recommendations as to how home or school may offer guidance and support. Gardner (1995) proposes that the distinguishing features of the 'Spectrum' approach to learning are the following;

'Theory-grounded analysis of a student's strengths, a concerted effort to relate these strengths to meaningful adult roles, the creation of curricular materials and learning centres that foster these strengths in a natural way, and the development of assessment procedures that can provide reliable information about, and yield pertinent recommendations for, a student's profile of capacities at a given moment in his development.'  
(Gardner, 1995, p210)

Although Gardner's work is criticised continually by neurophysiologists for being unscientific and unproven he has nevertheless been active and influential in promoting the implementation of alternative curricula particularly in relation to children with special needs (Wilson, 1998).

### **3.9 Stress in the learning environment**

The concept of a 'stress-free environment' that is associated with the work of Kraschen (1985) is an important concept to note in relation to early years educational settings, particularly with regard to young children with SLI and EAL. How 'events are perceived' have a direct impact on the production of

neurotransmitters in the body. If they are considered to be stressful, the body produces adrenalin and cortisol as a coping mechanism (Hannaford 1995). Diorio et al. (1993) have evidence to suggest that increased cortisol production correlates with memory and attention problems and thereby may negatively affect learning potential. Research by Pert and Snyder (1979) suggests that the hippocampus of the brain's limbic system, that is fundamentally related to memory and learning, is profoundly affected by stress. Enkephalins, the chemicals produced in the brain to numb pain, also increase hyperactivity and decrease memory. If persistent stress is a significant factor in early childhood, the hormones serotonin and noradrenaline will be produced at above normal levels, affecting both response and behaviour regulation (Gammage, 1999).

Burts et al. (1990) explored the stress behaviours of kindergarten children who attended developmentally appropriate and inappropriate classrooms. Their evidence suggests that children who attended developmentally inappropriate classrooms exhibited more stress behaviours than those learning in developmentally appropriate settings. In addition, for the former group, whole group and worksheet/workbook activities produced additional levels of stress. Over many years both in Europe and the USA professionals have developed and implemented alternative models of education that accommodate this research evidence and which relate closely to the principles of Developmentally Appropriate Practice (DAP) as defined by the NAEYC (Bredekamp 1987).

### **3.10 Summary**

Chapter Three has described and analysed the educational context that informed the practical stage of the study. The on-going debate over the purpose and nature of early years education and the struggle for its 'heart' is relevant to the study because it fundamentally affects the provision for SLI and EaL children in educational settings.

It is clear that the current atmosphere of discord amongst the early years educational fraternity is essentially political in nature and centred around the issues of assessment and accountability. The implementation of centrally controlled 'guidelines' has influenced the type of assessment procedures used by practitioners that in turn determines the educational opportunities experienced by young children.



Alternative curricula are not afforded the support necessary to engage effectively in the current debate and their absence at policy level is profoundly negative. Evidence that the quality of early years learning is a critical factor in determining future success across a range of developmental areas is significant in quantity and quality. The role played by emotional well-being and the culture in which children experience childhood are both gradually being acknowledged by influential parties as playing a vital part in ensuring the smooth development of young children. Having examined the Language, Developmental and Educational contexts of the study, the following chapter describes the methodology involved and the rationale behind its implementation.

This study proposes that the physical basis of curricular and communication skills have not been accounted for adequately by practitioners. This is critically important if the therapeutic and educational opportunities offered to young children with SLI and EAL are to achieve their desired effect. Theories of language development are many and varied and no approach can yet encompass the range of factors that promote academic achievement and social interaction. The prevalence of movement programs suggests a growing need and awareness of this field of development but conclusive proof as to their impact on learning skills is currently unavailable. The political context of the study has profound implications for both the educational opportunities offered to young children with SLI and EAL and the training experienced by practitioners. The significant role played by assessment procedures in influencing delivery of the curriculum has engendered fierce debate amongst professionals and support for the ‘humanising’ element of early years education is gathering consensus. This study suggests that the flexibility of the Medau approach to learning may provide a valuable support mechanism not only to practitioners but also parents and carers who wish to become more active participants in the learning process.

The study will be essentially qualitative in nature and adopt the action-research approach throughout the practical stages. The action-research model was suited to this project as evidence of change was sought in both children and professionals. This study suggests that the Medau approach to learning may enhance the curricular and communication skills of pre-school children with SLI and EAL and provide support for the professional development of practitioners in therapeutic and educational settings. There were three research objectives that will be examined in detail in the following chapter.

- 1) To develop and evaluate the effectiveness of the Initial Assessment Procedure (IAP) as a diagnostic tool.**
- 2) To develop and evaluate the effect of a movement intervention program on the curricular and communication skills of pre-school children with SLI and EAL.**
- 3) To evaluate the integration of Medau principles with therapeutic and Montessori practice alongside practitioners.**

# **CHAPTER 4**

## **Research design and methodology**



# RESEARCH DESIGN AND METHODOLOGY

## 4.0 Design of the research program

Two groups of children with SLI and two with EAL participated in a ten session INITIAL movement intervention program based on the Medau teaching method. The one hour sessions were held over consecutive weeks. Training was delivered to the participating Speech and Language Therapist (Nicky) and Montessori practitioner (Kate) in order to facilitate their independent delivery of the SECONDARY movement program. The study was structured in four consecutive stages. The key to adults and children included in the study and the timetable of the study are outlined below.

### Key to adult participants and children

#### Adult participants

The participant- researcher

Nicky (Speech and Language Therapist at the Language Unit)

Kate (Montessori practitioner)

Pat (Classroom assistant in the Montessori nursery)

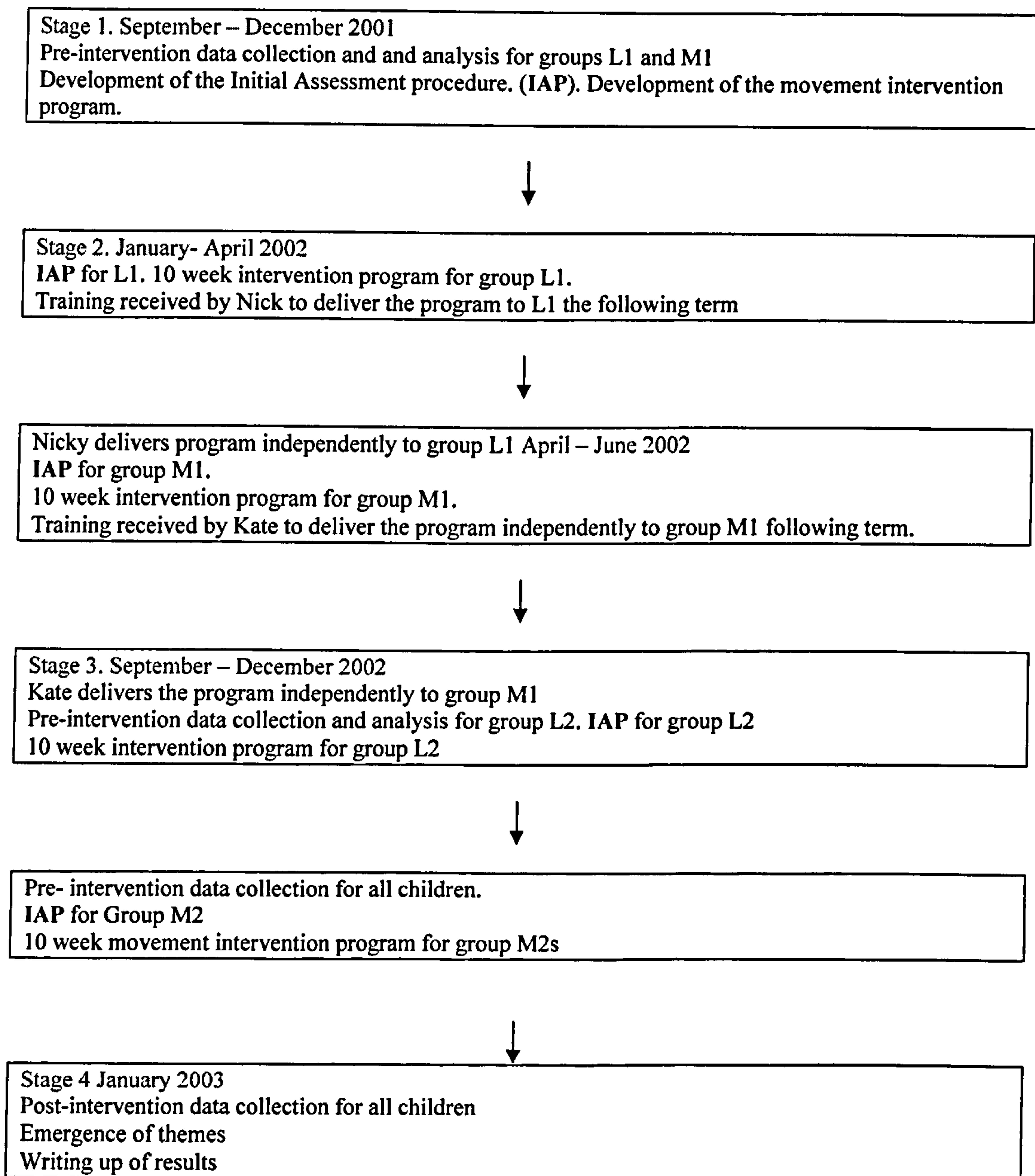
Lucy (Head of Language Services for a provincial borough and qualified Medau teacher)

#### Participating groups of children

L1, L2..... Participating groups of five children who attended the Language Unit (10 in total)

M1, M2..... Participating groups of ten children who attended the Montessori nursery (20 in total)

## MODEL OF THE STAGES OF RESEARCH PROGRAM



The figure outlines the four-stage approach of the research method. Starting with pre-intervention data collection, moving on to the Initial Assessment Procedure (IAP) and the delivery of the movement program itself. Following with the acquisition of post-intervention data and the writing up of results.

## **4.1 Timetable of research**

### **STAGE 1**

#### Research activity

- (1) Pre -intervention data collection and analysis. Groups L1 and M1
- (2) Development of the Initial Assessment Procedure (IAP).
- (3) Development of the movement intervention program. Three interlinked phases in each session: 'movement', 'apparatus' and 'recording'. Lucy to support the participant-researcher.

#### Objectives

- (1) 'Planning' stage of the action-research cycle.
- (2) Collection and analysis of data to inform the IAP.
- (3) Collection and analysis of data to inform the development of the movement intervention program.

Initial phase completed.

Preparation for the 'acting' stage of the study.

### **STAGE 2**

#### Research activity

- (1) IAP for group L1
- (2) Movement intervention program for group L1. INITIAL PROGRAM
- (3) Training received by Nicky (SLT)
- (4) Nicky delivers movement program to group L1. SECONDARY PROGRAM
- (5) IAP for group M1
- (6) Movement intervention program for group M1. INITIAL PROGRAM.
- (7) Training received by Kate (Montessori).



### Objectives

- (1) IAP for groups L1 and M1
- (2) Training received by Nicky (SLT).
- (3) Delivery of SECONDARY movement program by Nicky for group L1
- (4) Training received by Kate (Montessori)

### **STAGE 3**

#### Research activity

- (1) Pre-intervention data collection for group L2
- (2) IAP for group L2
- (3) Movement intervention program for group L2 INITIAL PROGRAM.
- (4) Kate delivers movement intervention program to group M1 SECONDARY PROGRAM.
- (5) Pre-intervention data collection for group M2
- (6) IAP for group M2
- (7) Movement intervention program for group M2. INITIAL PROGRAM.

### Objectives

- (1) IAP for groups M2 and L2
- (2) Delivery of SECONDARY movement program by Kate for group M1.

### **STAGE 4**

#### Research activity

- (1) Post-intervention data collection for all children. Lucy to support participant-researcher.

#### Objective

- (1) Evaluate the long-term effect of the movement intervention program on the curricular and communication skills of all children in the participating groups.

The ten session plans for the INITIAL movement intervention program may be reviewed in Appendix 8.

#### **4.2 Qualitative context of the study: action- research model**

The action-research model used for the purpose of this study is firmly rooted in the traditions of qualitative methodology. Denzin and Lincoln (1994) describe qualitative research as being;

‘Multi-method in focus involving an interpretative, naturalistic approach to its subject matter. It involves the studied use and collection of a variety of empirical materials and deploys a wide range of interconnective methods, hoping always to get a better fix on the subject matter at hand.’  
(Denzin and Lincoln, 1994 p2)

The emphasis in qualitative studies is on ‘processes and meanings that are not examined in terms of quantity, amount, intensity or frequency’ (Denzin and Lincoln 1994). This post-positivist stance relies on multiple methods of ‘capturing reality’ and generally highlights the ‘process of discovery’ throughout a research study. They propose that the ‘solution to difficulties’ is to be found in concrete situations and research practices ‘depend on the questions asked which in turn depend on a specific context.’

The term ‘action-research’ describes an evolving discipline. Originally used in a social action context and entitled ‘emancipatory research’ it has since become an accepted means for effecting change and the ‘improvement of practice’ in school settings (Sachs 1999). Thus the action-research model has a political and politicising element that adds depth of understanding through an interactive process. Punch (1998) suggests that;

‘The act of obtaining knowledge creates the potential for change, because the lack of research about certain groups accentuates and perpetuates their powerlessness. Because the needs and opinions of certain groups are not known, they have little influence on the conditions under which they live.’  
(Punch, 1998, p143)

Kemmis and McTaggart (1988) suggest that action-research comprises, ‘collective, self-reflective inquiry undertaken by participants to improve the productivity, rationality and understanding of their practices.’ It therefore involves a philosophical element that is concerned with ‘acting in knowing,’ a political

element that highlights the political aspect of knowledge production and a social science element that focuses on the empowerment of the research participants. Kemmis and McTaggart (1988) suggest that action-research studies should be based on a recursive cycle of plan/act/observe/review in order to assist the bridging of the gap between initial levels of participant knowledge and that achieved through the study. Punch (1998) highlights the importance of collecting a wide variety of qualitative data in order to evaluate the 'transferability of findings.'

Action-research methodology was applied to the delivery of the practical component of the study for two reasons. First, relevant literature and empirical evidence had emphasised its usefulness in educational settings in which the focus was on the 'improvement of practices through participatory analysis and evaluation.' The study was conducted in two such settings and involved the active participation of professional staff and their later independent delivery of the Medau movement program. Second, the plan/act/observe/review framework for the collection and analysis of data was well matched to the design and delivery of the program. Throughout the practical stage of the study each stage informed the next and provided the basis for further development of critical analysis.

A fundamental principle of action-research in educational settings is that the researcher 'takes actions grounded in understandings of the study' rather than simply 'documenting the situation.' The results of action-research studies are immediately applied and this application becomes the focus for the next cycle of the project. Sachs (1999) suggests that;

'The professional development potential of such activities lie not so much in the idea of skill development by either teachers or academics, but rather in the opportunity that new forms of association have to disrupt previous, taken-for-granted understandings of the world of practice and of the nature of knowledge in use.'  
(Sachs, 1999, p50)

Zeichner and Gore (1995) agree that the agenda of educational action-research is not solely about school improvement but was conceived with the aim of helping teachers understand what they know and constructing a framework within which this understanding may be extended to their students. As Sachs (1999) writes, 'Within school contexts action-research can be seen as a potent means of facilitating



teacher involvement in change initiatives occurring in their schools, as well as validating teachers' theories in practice.'

The emphasis on the collection of diverse qualitative data that is a significant feature of action-research methodology is open to criticism. Huberman (1996) questions whether this research approach may qualify as a research method at all and challenges the claim that it possesses the means to generate a 'qualitatively distinctive body of skills, understandings and dispositions.' He suggests that it is impossible for researchers to understand and evaluate events if they are also participants in the study. He also insists that teachers who engage in action-research studies must abide by the guidelines of qualitative research that are: 'The provision of evidence, consistency, freedom from obvious bias and the perceptions of the people involved.' His main concern is that, 'Minimally reliable methods are needed to provide minimal safeguards against delusion and distortion.'

Brooker and Macpherson (1999) emphasise the difficulties inherent in writing up action-research projects and warn that; 'The reporting of the processes and outcomes of some of that research appears to be little more than picturesque journeys of self-indulgence.' They also state that practitioner-researchers must be clear as to the purpose of their studies and the way in which the action-research model is to be applied. They caution against the effect that varying interpretations of evidence by participants may have on the efficacy of future investigations. Brooker and Macpherson (1999) also insist that readers of action-research studies must be assured that the claims made derive from the data alone and do not contain an element of 'creative licence' by the researcher.

Kemmis (1994) suggests that if action-research projects are to be considered as serious studies an element of 'critical emancipation' is obligatory or they may be viewed as little more than 'a systematic way of getting things done.'

This study adopted a purely qualitative approach for the following reasons. First, previous studies by Elliot (1997) and Johnson (1996) focused on the effect physical education programs had on academic performance and creativity in movement. In both cases the data was primarily quantitative in nature and

standard assessment procedures were used to analyse progress in narrow areas of development. No qualitative evidence was gained to assess the wider impact of these programs on the lives of the children involved, their carers and teachers, or the long-term effect on their curricular and communication skills. In contrast, the qualitative approach adopted by this study accommodated a wide variety of data collection tools and enabled the gathering of a breadth and depth of evidence that a quantitative approach may not have been able to do. Second, the age of the participants and the settings in which the movement program was delivered determined the suitability of a qualitative approach to the study. Third, the evolving nature of the movement sessions made a qualitative approach essential. The children were not being assessed on specific repetitive exercises that could be measured on a standard procedures but experiencing a movement program that accommodated their progress in a range of developmental areas. The design of the study was therefore not comparative in nature and the use of control groups to contrast levels of development was not included. For these reasons, a purely qualitative approach to data collection was considered the most appropriate.

### **4.3 Ethical considerations of the study**

Punch (1994 p83) states that ‘ethical considerations start with the researchers choice of topic’ and cites the following concepts as being of critical importance to those involved in qualitative research; harm, consent, deception, privacy and confidentiality of data. Punch (1994, p 85) also warns that the ‘deep involvement’ in settings and ‘strong identification’ with the subject being researched that is often a necessary element in this genre of enquiry often leads to a ‘level of vulnerability, risk and uncertainty not usually prevalent in other forms of study.’

The ethical considerations related to this study were considerable and fell into two distinct areas of concern. First, the nature of the relationship between the researcher and the subjects involved and second, the ‘moral purpose’ of the study. As Punch (1994 p 89) clarifies; subjects in action-research studies are seen as, ‘partners in the process, respondents, participants, stakeholders.’



Owing to the age of the children involved in the study, their parents signed a consent form (Appendix 2) that related to the videotaping of their children participating in the IAP and the practical sessions of the movement intervention program. The children were not coerced or induced in any material way to take part and if the parents at any time felt they were not benefiting from the experience, they were free to remove them at any time without impunity. The relationship between the researcher-children-parents and practitioners had to be one of mutual honesty and trust. In addition, the daily relationship between Nicky (SLT) and the parents and Kate (Montessori) and the parents could not be compromised by the children's participation in the program. In contrast to many action-research studies, the issue of deception was not a feature. The parents, professionals and attendant staff in both settings were aware of the nature, purpose and content of the study and were encouraged to contact the researcher by telephone or e-mail if they had any concerns.

The issue of privacy was more problematic. The pre and post- intervention questionnaires were completed by the parents and practitioners involved. These provided data relating to the children's experiences in their home settings and attitudinal information regarding the impact of governmental guidelines on professional practice. It was important that the parents did not know of Nicky and Kate's concerns but in contrast, they may have gained some benefit from the information provided by the parents on the questionnaires regarding the impact of the children's language difficulties in diverse settings. In addition, it may have been of benefit to the parents in both settings to watch the video footage of their children participating in the sessions. Both Nicky and Kate advised that to acquire consent from each parent to allow others to watch their children would not be advisable. A second issue that emerged concerning the use of videotape was the caveat placed upon the data in the original letter that accompanied the parental consent form. This clearly stated that the footage would only be viewed by the research team. Therefore the use of this data was limited and a significant source of training to other professionals was denied. However, it is suggested that another letter could be written to the parties concerned that reviews the results of the study and asks if the video data may be used for education purposes.



Punch's (1994) insistence that qualitative research should be able to claim a moral purpose highlights two pertinent issues. First, whether the study included a moral dimension and second, whether the researcher bore any moral responsibility at the close for the participants?

The answer to the first question is a qualified yes. Pre-intervention data had identified significant gaps in understanding by Nicky (SLT) and Kate (Montessori) as to the rationale for their practice and its effective delivery in their professional settings. A major aim of the study was to effect a change in their practice by absorbing the principles of the Medau teaching method and delivering the movement program independently. The issue of responsibility for participants at the end of a study is always problematic. As Punch, (1994, p 93) states, 'The researcher is essentially a transient who at some stage will abandon the field and will re-enter an alternative social reality that is generally far more comforting and supportive.' It was critical therefore that not only Nicky and Kate remained on good terms with their immediate colleagues but that they actively demonstrated to them and their respective professional bodies the areas of knowledge that had been affected by their experiences.

Prior to the start of the intervention program, the following ethical guidelines were drawn up and agreed upon by the researcher, Nicky, Kate and Lucy.

- ❖ The study must use and extend the skills of practitioners
- ❖ The study is done 'with' not 'to' participants
- ❖ The study is conducted in an open and honest manner with informed consent from parents. Children may withdraw themselves or be withdrawn by parents at any time for whatever reason – and may participate again without censure
- ❖ The study is collaborative
- ❖ The study must be empowering and developmentally appropriate for participants
- ❖ The study has utility for practitioners, parents and children
- ❖ The study respects the values and wishes of the above parties
- ❖ The study protects the parties from harm and especially practitioners from professional animosity
- ❖ The study respects confidentiality

#### **4.4 Data collection: research tools**

The following research tools were utilised throughout the pre-intervention and intervention stages of the study and were implemented in the following order:

1. Pre-intervention questionnaires
1. Observational visits
2. Pilot sessions
4. Conversations
5. Videotape
6. Diaries

##### **1. Pre-intervention questionnaires**

Pre-intervention questionnaires were developed for the purpose of the study and given to the parents/carers of all children participating in the program and to Nicky (SLT for the language groups) and Kate (Montessori groups). These may be found in Appendices 3 and 4 respectively. These questionnaires sought to elicit both factual and attitudinal information relating to the children and the educational and therapeutic provision available to them. The fourteen questions presented to all the parents/carers focused on the children's pre-nursery experiences and any likes, dislikes or difficulties they encountered within their nursery settings.

The six questions that comprised the questionnaire for Nicky and Kate highlighted their views on professional practice, the Foundation Stage Curriculum and any previous experience of using movement as a teaching aid they may have had.

Evidence gained from the questionnaires provided essential detail that consequently informed the Initial Assessment Procedure (IAP) and the development of the movement intervention program. The possibility of translating the questionnaires into the primary languages of the parents/carers of the children

who attended the Montessori nursery was not explored. The logistical difficulties that related to obtaining translators in the languages spoken by this group were considered by the staff to be of possible detriment to the smooth running of the nursery.

The use of questionnaires to elicit information in qualitative studies is problematic. For the purpose of this study they were not anonymous as each parent was encouraged to complete one for their own child and Nicky and Kate knew the recipient. This led to significant issues of honesty and trust. If the parents provided information that would positively affect the practice of either professional, would that be adequate grounds on which to pass this on? Similarly, if Nicky or Kate divulged evidence that their settings would benefit from knowing, would that in turn be ethical? The researcher decided that to uphold the principle of confidentiality, no information would be passed from one party to another.

## 2. Observational visits

Two x three-hour visits were arranged in both settings prior to the implementation of the initial ten-session movement program. Children in both participating groups were observed for a total of six hours in their school settings and detailed field notes were taken. The observational visits were designed to provide data that informed the Initial Assessment Procedure (IAP) and the development of the movement program itself.

The field notes were based on prior analysis of the completed questionnaires and were designed to illuminate areas of concern and interest. Data was recorded by drawing headings that related to evidence from the questionnaires and the aims and objectives of the study. Notes were made on the appropriate page and under the appropriate heading as and when particular relevant incidents or circumstances were observed. A fresh set of pages were utilised for each period of observation.

The curricular and communication skills of the children were observed as they participated in language therapy sessions and nursery activities. Punch (1998) suggests that qualitative approaches to observation do not require predeveloped, highly structured observation schedules and allow for a natural, open-ended recording technique. This approach was well suited to the settings and ages of the participants and



allowed for the collection of anecdotal evidence gained from participating adults. In this scheme behaviour is observed as a 'stream of actions and events as they naturally unfold.' Throughout the pre-intervention stage of data collection the observations were 'naturalistic' as the 'behaviour of those being observed was neither manipulated nor stimulated' (Punch 1998). On the basis of evidence acquired during these initial visits a pilot movement session was delivered by the participant- researcher to each group in both settings.

### 3. Pilot sessions

These were designed to assess the suitability of venues, length and format of the proposed sessions and the children's reaction to working to music and with each other as a group. It was also important at this stage to determine the level of assistance necessary to ensure the smooth delivery of sessions. The pilot sessions also informed the development of the Initial Assessment Procedure (IAP) and the content of the movement program.

### 4. Conversations

On-going dialogue played a significant role in the acquisition of high quality data throughout the study. Semi-structured or formal interviews were not considered a suitable means by which evidence could be collected, because of the nature of the settings and the subjects involved. Conversations, in contrast, were able to be of varying lengths and involved diverse numbers of participants. They provided a flexible, non-intrusive and stress-free means by which qualitative data was retrieved throughout the study. Post-session conversations with Nicky, Kate and Pat (adult participant with group M2) were recorded after sessions one, five and ten and written material was collected on other occasions if time was at a premium. Feldman (1999) argues that conversation may serve as a form of research methodology within an action - research framework. He writes that;

'Conversation suggests a connection that is sustained or sustainable and goes beyond chitchat or chatter. There should be an exchange of views, a dialogue that consists of connected remarks in which the contributions of the participants must be dovetailed and mutually dependent. For conversations to consist of connected remarks or utterances there must be cooperation among the participants. They must be partners. Conversation can lead to action, follow action or be part of action. Through the intermingling of conversation and action praxis comes about with its growth of knowledge, understanding and theory through action.'

(Feldman, 1999,p 133)

## 5. Videotape

Videotape was used extensively throughout the practical stage of the study to underpin and support the acquisition of qualitative data. Craig (1987) and Mehan (1993) propose that video analysis may be used as a powerful instrument for observing changes over time as the researcher is able to reverse time during viewing and compare and contrast events that occurred separately in time or not in chronological order.

The format for analysing video data followed that adopted during the pre-intervention stage when field notes were taken during observational visits (Appendix 9). Two categories that related to the aims of the study were established a priori (curricular and communication skills) but the form was designed to accommodate emerging themes and could be used by Nicky, Kate and Lucy without difficulty. This was a critical element in implementing the triangulation process of data verification that Punch (1998) recommends should 'be in place from day one.' The form is divided into three phases for analysis that follows the three phases of the practical sessions. Nicky, Kate and Lucy followed this format for weeks 1/5/10 of the initial program and weeks 1/5/10 of the secondary program.

Videotape has been used previously in studies that highlight the enhancement of practice in the teaching of literacy (Gallimore and Goldenberg 1992, Denyer and Florio-Ruane 1995). Zellermayer and Ronn (1999) also concluded that videotape may be used to introduce new 'thought patterns' among practitioners. In their three-year longitudinal study a group of Israeli teachers were encouraged to modify their strictly formal methods of teaching literacy by observing videotape of their own practices and comparing these to those adopted by a corresponding group of Canadian teachers. The Israeli teachers demonstrated that owing to the process of comparing and contrasting their educational performances with those of the Canadian teachers, they moved from a position of difficulty in relating student needs to those of society to a position in which both commitments were accommodated simultaneously.

For the purpose of this study the Initial Assessment Procedure (IAP) of each child was videotaped in full. Sessions one, five and ten of the initial movement program with the participant-researcher were also filmed in entirety for all participating groups and specific phases of the remaining sessions were filmed on

a weekly basis. The IAP performed by each child took, on average, 20 minutes to complete. Throughout this process the children in the Language Unit were attended by Nicky who completed the tasks alongside the children. The Montessori children completed the assessment procedure without Kate in attendance as she was unable to commit to the time necessary. A process of triangulation was implemented once filming was completed. The participant-researcher viewed the data initially. Before the beginning of the movement intervention program, both Nicky and Kate viewed the data independently and provided feedback. Lucy also viewed the data from the Language Unit and provided feedback. During this stage of the study the focus was on assessing the levels of curricular and communicative competency in the light of pre-intervention evidence. This related to the first research objective.

A similar triangulation procedure was implemented throughout the movement intervention program delivered by the research-practitioner and subsequently delivered independently by Nicky and Kate. The participant-researcher viewed the data initially. Nicky and Kate then viewed the data independently. In addition, Lucy viewed the evidence from the Language Unit and Kate invited the Montessori teachers to view the evidence *alongside* her and provide feedback. At the completion of the program, data from sessions 1-5-10 were reviewed in the light of the research objectives.

The curricular skills focused on in the IAP and throughout the movement program were as follows:

Concentration

Proprioception

Timing and rhythmic competency

Information processing

Memory

Vocabulary

Fine motor coordination

Handedness/pincer-grip

Foveal focus

Perseverance

Precision



## Decision-making

The **communication skills** focused on in the IAP and throughout the movement program were as follows:

Spatial awareness

Touch sensitivity

Eye contact

Turn-taking

Cooperation

Assisting

Praise

Humour

Listening

Observation

Sharing

Oral-flow

The observational criteria were drawn up by the participant-researcher in the context of empirical evidence, professional experience and Medau principles.

## 6. Diaries

Robertson (2000) recognises the influence of careful diary-keeping on the success of an action research study;

**‘In action-research the researchers are constantly being transformed through keeping diaries of reflections, sifting through the data, rereading the literature to make new decisions as to the next action, involved in continual discussions, all of the time becoming more aware of themselves and the processes they are utilising.’**

**(Robertson, 2000, p 133)**

Nicky (SLT) and Kate (Montessori) kept weekly records of their experiences of the movement sessions that also included observations regarding the curricular and communication skills of the children in their

school settings. They spoke on a daily basis to other members of staff who were in close contact with the children to gain additional information. Pat, the Montessori assistant contributed her reflections during the third stage of the study although these did not provide the basis for an independent delivery of the movement program. The participant -researcher also kept a weekly diary in which observations and reflections of the sessions and the children's progress were recorded.

#### **4.5 Methods of post-intervention data collection**

The collection of post-intervention data followed a similar structure as that adhered to at the pre-intervention stage:

1. Post-intervention questionnaires (Appendices 7A and 7B)
2. Observational visits
3. Conversations

Two x three-hour visits were arranged for both settings and the children were observed in language therapy sessions and participating in nursery activities. Detailed field notes were taken and conversations took place with the resident staff. Parents contributed verbally to the body of evidence whenever possible through interaction with their children's class teachers and Nicky, Kate and Pat. Nicky and Kate were given a questionnaire to complete (Appendix 7B) that included five questions highlighting the effect of the movement program on their professional practice. It was also designed to elicit attitudinal information regarding their independent delivery of the program. The parents/carers of the children were asked to complete a questionnaire (Appendix 7A) that addressed the effect of the intervention program on the children's curricular and communication skills. The program diaries were collected from Nicky, Kate and Pat.

#### **4.6 Validity of research methodology**

Denzin (1989) proposed that a 'triangular' method of data collection may provide a 'multi-faceted approach to data collection and analysis that is able to minimise researcher practitioner bias.' Punch (1998) suggests that the 'logic of triangulation' may support the means by which findings from one study type may be checked against another to enhance the validity of research evidence. MacDonald and Tipton (1996) meanwhile recommend Denzin's (1989) triangulation framework to ensure that all data is reviewed from more than one angle.

The complexities involved in assessing and accommodating similarities and differences in professional principles, training and experience of adult participants was a particular concern of this study. The longstanding insider/outsider debate (Punch 1998) highlights the unequal relationship between dominant group researchers and those participating in the study. The participant- researcher was the only trained practitioner of the Medau teaching method, (other than Lucy who was the Head of Language Services for a local borough) and placed her in the dominant position in terms of knowledge and experience. The inclusion of Lucy in the study was therefore critical. She was both Medau trained and a qualified Speech and Language Therapist and was thus able to analyse the similarities and differences in approach between the two disciplines and allay concerns on both sides. The participant-researcher in relation to the Montessori environment relied on longstanding contacts within the Montessori association and fifteen years' experience of training Montessori practitioners in the Medau method.

Throughout the study therefore a triangulation approach was adopted. Both Nicky and Kate were active during the Initial Assessment Procedure (IAP) and recorded their own observations and reflections relating to the delivery of the movement program by the participant- researcher. They viewed the videotape independently of the participant -researcher and Lucy in order to analyse how the children reacted to ideas, instructions, materials, to each other and participating adults. They then used this knowledge to enhance their preparation for their own independent delivery of the program and to develop further their critical faculties. Pat also viewed the videotape independently and recorded her observations relating to the curricular and communication skills of the children.



In addition, to minimise the diversity of data interpretation due to variations in professional knowledge, training and experience, Lucy also analysed a selection of the two-dimensional evidence that the children provided during the Initial Assessment Procedure (IAP).

#### **4.7 Data analysis techniques**

The structure of the study remained constant throughout the four stages. Two categories for data collection were established 'a priori' (curricular and communicative competency) but the emergence of five distinct themes during the study was a feature of the diversity of qualitative evidence acquired. The process of triangulation implemented throughout the study ensured that participant- researcher bias was minimised, and the critical role of Lucy remained constant throughout. The analysis of data progressed in four stages:

- (1) Pre-intervention data was collated and analysed by the participant-researcher. In concurrence with the action -research cycle, this affected the development of the Initial Assessment Procedure (IAP) and the content of the movement program itself.
- (2) Videotape was acquired from practical sessions and viewed by the participant -researcher, Lucy, Nicky, Kate and the Montessori staff. A common interpretive approach to the data was built through debate concerning the children's response to the material. General observations and documentation of evidence followed. This ensured that a collaborative network of research participants provided qualitative data.
- (3) Videotape of the movement sessions was reviewed and preliminary explanations were submitted by participating adults in answer to the research objectives. A further analysis of the details of qualitative data collected was undertaken as the patterns and themes of the study evolved.

(4) Evidence was collated and five themes emerged from the two established categories of curricular and communicative competency. These were compared, explored and discussed. The five themes were as follows:

- (a) Conflict
- (b) Learning environment
- (c) Teacher direction
- (d) Transfer of skills
- (e) Communication

This informed the action -research cycle throughout the 'acting' element of the study.

#### **4.8 Development of the Initial Assessment Procedure (IAP)**

The Initial Assessment Procedure (IAP) was developed in relation to pre-intervention data and through consideration of findings from previous studies. This data then informed the ten-week movement program in accordance with the action-research cycle. Evidence acquired from studies by Cermak et al. (1986), McLoughlin and Gullo (1992) and Bishop (1992) suggest that children with SLI perform less well than normal children on motor coordination tests. Data gained by Carroll et al (1989) and Powell and Bishop (1992) indicated that children with communication problems do not perform as well as others on visual perceptual tasks requiring discrimination of similar shapes. Hammond (1990) has evidence to suggest that a close relationship may exist between spoken language and manual dexterity, and research by Levine (1985) and Merriman et al. (1993) suggests that articulation deficits may have a clearer relationship to fine -motor planning rather than gross- motor planning.

Merriman (1993) studied children with SLI (average age 4.2 years) and compared them to children without difficulties on the standing long-jump test. Both groups produced similar quantitative results but the latter group demonstrated significantly more developmentally mature movement patterns. Beitchman

et al. (1996) provide evidence that suggests a high proportion of children with SLI also meet the diagnostic criteria for Attention Deficit Disorder (ADD), while Stevenson et al. (1985) also suggest that a high proportion of children with language difficulties also present a wide range of behavioural problems.

Alternative assessment procedures were evaluated in order to confirm the necessity for a new assessment procedure that related specifically to pre-school children with SLI and EAL who were participating in the movement intervention program. The Keele Pre-School Assessment Guide (Tyler 1979) is widely used in nursery settings in England and Wales. However this was not able to supply the necessary data that related to the movement program and did not account for the research evidence that applied to children with language difficulties. The Wynn Sensory Profile questionnaire (Wynn 1999) is frequently used to assess the behavioural and sensory processing difficulties of SLI children. It is a comprehensive test but does not include a wide enough range of gross and fine- motor skills that research evidence suggests are problematic for children with SLI and was unsuitable as an assessment procedure for EAL children.

The assessment test used by Johnson (1996) for children who participated in the 'Project First Start' program was based on fundamental physical skills: balance, laterality, body image, hand/eye and general motor coordination, tactile touch, audio receptive and audio expressive language. It proved to be a suitable assessment procedure for his PE-based program but did not relate closely enough to children with SLI who experience a wide range of physical and communication difficulties. Weikart (1985) used a 'Rhythmic Competency' test as the initial assessment procedure for children participating in her movement program. Tasks included visual and aural decoding, 'pat-to-the-beat and walk-to-the-beat' activities. This assessment process did inform the development of the IAP for the Medau movement program because the tasks it included related closely to the problems SLI and EAL children experience in following the rhythm and interaction of verbal communication. Kuhlman and Shweinhart (1987) subsequently discovered a close relationship between children's timing skills and their ability to pay attention and concentrate.

Blythe and Goddard-Blythe (2001) developed a specialised assessment procedure that relates to retained primary sensory- motor reflexes for children who experience learning difficulties. Tasks in this



assessment procedure include those to assess balance, the ability to cross the midline of the body, finger and thumb opposition and the accurate drawing of geometrical shapes. The DDAT (Dyslexia, Dyspraxia and Attention Disorder Treatment) centres employ a battery of highly sophisticated tests that relate to eye functioning (the electronystagmography test) and postural reflexes (the posturography test).

These assessment procedures were considered unsuitable as information-gathering procedures for the movement program as they did not account for a wide enough range of physical and communication skills, required specialist equipment and do not relate to young children with EAL. Dockrell and Lindsay (2000) also strongly recommend that the diagnostic tools relating to SLI children should be reviewed to encompass a wider range of skills that at present are too narrow and specific and do not account for parental input.

Lindsay and Desforges (1999) suggest that twelve key principles should be accommodated within assessment procedures that form part of a screening process. These principles are; importance, simplicity, acceptability, accuracy, sensitivity, specificity, replicability, links with intervention, links with assessment, lack of ambiguity, improvement and cost-effectiveness. They make clear that the 'process' of the identification of difficulties should meet their criteria or 'at least show high degrees of concordance' and suggest that any assessment procedure should be 'integrated into a continuous system of monitoring children's development.'

The IAP that was developed to inform the Medau movement intervention program was therefore supported by empirical research evidence and influenced by the principles of assessment suggested by Lindsay and Desforges (1999). Twenty-one tasks were included. Tasks 1 to 15 concentrated on fine and gross-motor skills, visual skills, spatial awareness and memory, concentration, proprioception, information processing, balance, handedness, precision and decision-making. All these tasks related directly to curricular skills required in the classroom. The final six tasks of the IAP highlighted social and communication skills; spatial awareness, touch sensitivity, eye contact, turn-taking and cooperation. The *content* of the IAP is outlined in Appendix 5A. The *criteria* for the IAP is outlined in Appendix 5B. The structure and content of the ten-week intervention program is outlined in Appendix 8.

#### **4.9 Participants and settings**

Two settings were chosen for the study. Children comprising groups L1 and L2 came from a Language Unit attached to a state-funded nursery in a large provincial town. This setting was suggested by Lucy, the Head of Language Services for the local borough, who also suggested that Nicky participate in and deliver the movement program independently. Groups M1 and M2 were chosen from the four Montessori nursery classes of an international primary school in a city. This setting was selected as the majority of children who attended had EAL. The Head Teacher of the nursery at the time suggested the involvement of Kate as she was available to deliver the movement program independently.

The choice of SLI and EAL groups was based on the previous experience of the researcher in training SLT's and Montessori practitioners in the Medau approach to developing curricular and communication skills, and many years practical experience teaching young children with language difficulties and Montessori attendees. Significant problems in both groups had been revealed over time before the start of the study.

##### **The Language Unit — groups L1 and L2**

The nursery in which the Language Unit was situated was in the centre of a large town. Purpose-built, it had places for twenty children in both the 2.5 hour morning and afternoon sessions, including the two groups of five children who attended the Language Unit. The unit itself was situated in a small carpeted room (10 ft x 10 ft) adjacent to the main area of the nursery. Windows overlooked the nature pond and there was a two-way mirror on the left wall that enabled parents and professionals to observe Nicky working with the children. The nursery itself was open-plan and had extensive facilities for sand and water play. There was a well-stocked and carpeted book corner and other areas were designed for dressing-up, computers, cooking and painting.

Outside, on a tar macadam surface, a large wooden climbing frame, tricycles and building blocks were available to the children. It also housed the hutches for the nursery rabbits. The Headteacher had worked at the nursery for many years and two qualified assistants were employed permanently to assist her. Nicky worked full-time in the unit and saw each child individually for language therapy sessions for between ten and twenty minutes each day. The children in her care were included (whenever possible) in nursery activities and joined in school trips and plays. Places in the Language Unit were limited and difficult to obtain. Children attended for at least one year before entering the reception class of a local primary school or being admitted to another specialist language therapy unit.

All the children who attended the unit during this time had been diagnosed as experiencing language difficulties between the ages of 2 to 2.5 years old except Ellie (group L1) who was 4 years old. Group L1 was comprised of four boys and one girl between 4 to 4.5 years old who attended the nursery for the morning session. Group L2 was comprised of five boys in the same age range who attended the nursery in the afternoon and group. The children were all native English speakers and their parents and carers were also native English speakers. Nicky was solely responsible for Speech and Language Therapy and was employed directly by the Local Health Authority.

Nicky had been practising as a Speech and Language Therapist for ten years with children ranging in age from 2.5 to 16 years. She completed a four-year training course at a British university, had a B.Med.Sci. (Speech) and was working towards a diploma in Play Therapy. She experienced no movement training during her degree course that was predominantly science-based. Nicky was proficient in the Macaton sign language and a cued articulation system named 'Signalong' that she used on a daily basis to support the children's communication skills in the nursery and during individual therapy sessions.

#### The Montessori nursery — Groups M1 and M2

Groups M1 and M2 were chosen from the eighty children who attended the Montessori classes of a large private international primary school. The school was based in a Victorian house overlooking two acres of walled garden. The four nursery classes were situated in the basement of the building. Children were accepted from 2.9 years and entered the reception classes when they were 4 years old. They were offered



the opportunity to stay all day and have lunch at school or go home after the morning session. No children attended for the afternoon only.

The facilities for play in the classrooms were adequate but there was no large play equipment for use in the garden and no apparatus was available for the children to practise gross- motor skills such as climbing, kicking, throwing or catching. The children attended ballet and gymnastic lessons, and swimming was compulsory when they entered the reception year. The majority of children attending the upper school followed the National Curriculum, but at six years old all children were allowed to enter the 'CNER' French system in order to facilitate entry to the local French secondary school. On average 25 per cent of the children decided to do so each year. The parents of the children in the nursery were diplomats or on secondment from large international corporations. There was a wide range of ethnic backgrounds and a continually shifting population of children. All four nursery classes were taught by qualified Montessori teachers with the help of an assistant and a 'floating' student whenever possible.

The majority of children who were included in the study were 'sequential bilinguals' as they were acquiring English at a later stage from the time they began to speak their native languages. In group M1 (three boys and seven girls between 3.6 and 4.2 years) one child spoke English as his primary language, five spoke French and four Arabic. In group M2 (four boys and six girls between 4.0 and 4.7 years) two were native English speakers (one boy had been diagnosed with SLI), one spoke Italian, four spoke Arabic and three spoke French.

All the teachers and assistants were native English speakers and the curriculum was delivered in English. There was no language support system in place for non-English speaking children, and their parents and carers were advised to make their own arrangements to assist in this area. Kate had a Montessori teaching diploma and six years' teaching experience in nursery and reception classes. She had recently completed a BA Honours (Education) specialising in Art. Pat had qualified as a Montessori practitioner two years previously.

#### 4.10 The professional development of participating practitioners

Central to the study was the independent delivery of the movement program by Nicky and Kate. The training they experienced closely followed the ‘mentoring’ model that is frequently used by experienced teachers in educational settings to support newly qualified staff during the ‘induction stage’ of their careers. An induction period is a ‘bridging stage’ between initial and in-service training in which ongoing support and guidance is provided to ensure professional development (Bolam, 1995). Evidence suggests that teachers in the very early stages of their careers who are involved in induction programs have more positive attitudes to teaching, greater satisfaction with teaching, better relationships with teachers and plan to work longer in the profession than those who do not participate (Colbeitt and Wolff 1992; Klug and Salzman 1991).

Veenman et al (2000) suggest that the mentoring stage of teacher development may improve ‘instructional effectiveness’ by providing feedback and ‘stimulating reflection on practice.’ At this initial stage those who are being mentored are considered to be in a state of relative dependence on the mentor. Over time mentoring may develop into coaching. MacLennan (1995) defines a mentor as being an experienced teacher who is available for the developing teacher to learn *from*. A coach is defined as being an experienced teacher who is available for the beginning teacher to learn *with*. During this secondary stage the coach provides ongoing support for professional development but is also in a position to encourage autonomy and self-reliance (Barnett 1996).

Gray and Gray (1985) in their ‘mentor/protégé assisting model’ distinguish five stages in the assistance that mentors may provide. During the first stage the mentor tells the protégé what to do. In the second stage the protégé is provided with suitable information as to what to do under guidance. In the third stage the focus is on joint participation between mentor and protégé. In the fourth stage the mentor delegates tasks to the protégé and offers ongoing support. The final, fifth stage involves the protégé working in a self-directed manner with guidance and encouragement being provided by the mentor. Mentoring therefore precedes coaching and is a process that can; ‘Help teachers improve their instructional

effectiveness by providing them with feedback on their functioning and stimulating them to become more reflective' (Veenman et al 2000).

During the coaching stage the ongoing professional development of the teacher is emphasised. Costa and Garmston (1994) developed their theory of 'cognitive coaching' in which they believed the instructional behaviour of teachers may not be influenced until their 'internal thought processes have been altered.' Reflection on practice is considered the optimal means by which this is accomplished. In this model the ultimate aim is professional empowerment and growth in autonomy. For Nicky and Kate the training they received in order to deliver the movement program independently was based on the following mentoring into coaching continuum;

- (1) Nicky and Kate complete the pre-intervention questionnaire (Appendix 4).  
Conversations with fellow professionals and the participant-researcher.
- (2) Observe pilot sessions. Assist in the Initial Assessment Procedure (IAP) for all children. View videotape of the IAP independently and write critical observations of children in all groups and relate these to current levels of curricular and communication skills.
- (3) Participate in the ten practical sessions of the INITIAL movement program with the participant-researcher. Critical analysis of emergent themes is encouraged. Nicky and Kate to submit their own ideas for consideration relating to the content of sessions.
- (5) Formation of own ideas and session plans. Ongoing discussion with the participant-researcher concerning the delivery of their sessions. Review of videotape to analyse the teaching skills required to deliver the SECONDARY movement program successfully.
- (6) Nicky and Kate's independent delivery of the SECONDARY movement program. E-mail and telephone contact established and on-going. Three visits by participant-researcher to videotape



sessions 1, 5 and 10 of their respective programs. Review of diary entries. Review of videotape by the participant-researcher, Nicky and Lucy, Kate and the Montessori practitioners.

- (7) Ongoing professional development and integration of the principles of the Medau teaching method in daily practice.

Sachs (1999) however cautions the following;

‘As a prime consideration for success of such endeavours, it is important that neither partner asks the other to become the same as them. Instead, each partner needs to come to respect and appreciate the difference between them and the different roles they play in the education enterprise.’

(Sachs, 1999 p 44)

#### 4.11 Summary

The study adhered closely to the principles of action-research methodology. This approach accommodated the wide range of qualitative data that was acquired in order to achieve the stated research objectives. A triangulation method was utilised to minimise bias by the participant-researcher and Lucy was an essential element in ensuring that the principle of triangulation was implemented effectively.

The action -research rationale was implemented in three specific areas of the study;

- (1) First, the form and content of the Initial Assessment Procedure (IAP) was influenced by the data acquired from pre-intervention questionnaires, observational visits to both settings, conversations and pilot sessions.
- (2) Second, the delivery of the INITIAL movement program by the participant-researcher was influenced by pre-intervention data.

(3) Third, the professional development of Nicky and Kate and their delivery of the SECONDARY movement program was influenced by evidence gained throughout the INITIAL movement program with the participant-researcher.

From the data generated, key themes were identified and these were used to meet the research objectives.

# **CHAPTER 5**

## **Results**

### **Pre-intervention**



## RESULTS : PRE-INTERVENTION

### 5.0 Questionnaire : Parents

#### The Language Unit

All ten mothers/carers of children attending the Language Unit completed the pre-intervention questionnaires (Appendix 3). It must be noted that only *meaningful* responses to the questions have been included in the evidence presented and therefore not every question will be reflected on and analysed equally. They responded that they had not noted any specific difficulties when their children were babies. However their children all started to walk between 15-22 months in contrast to the Montessori groups, whose parents noted that this skill was mastered at a significantly earlier age of between 10-14 months. They noted that their anxiety levels concerning the overall development of their children increased significantly after their referral to a Speech and Language Therapist (SLT). They had all started to compare frequently their children's performance with others' of the same age who had not been diagnosed as experiencing language problems. They also confirmed the areas of difficulty in their children's lives that had been noted by the participant-researcher during the observational visits. These included tasks that demanded a high degree of fine -motor skill, (turning taps off and on, opening doors and drawing), and activities that required strength, coordination and balance such as bicycling, climbing and swimming.

They wrote that they also felt a level of frustration accommodating the different agendas of professionals (GPs, Speech and Language Therapists, Educational Psychologists, Nursery staff), and questioned why they had never before been consulted about the wider difficulties their children experienced both at school and at home and the effect that these may have on their successful integration. They had no specific expectations of future achievement for their children, stating that they just 'wanted him/her to be normal and okay.' The priority for this group of parents was to ensure that their children should be 'happy in life and to grow up confident and independent.' They had serious concerns surrounding the next stage of their children's schooling and the distinct possibility that a similar level of language support would not be available, thus affecting a smooth transition from a small group of five children to a large reception class

of twenty-five. They responded that they felt very involved in their children's progress, and all agreed that the daily information provided by Nicky was beneficial in ensuring that the therapeutic process was continued at home. The children's home diaries (as confirmed by Nicky) were completed by all parents every day and returned without fail. The Nursery staff noted ruefully how much more supportive and reliable Nicky's parents were towards her than the majority of the parents of the mainstream nursery children.

### The Montessori nursery

The data gained from the Montessori parents was not as comprehensive. Again, only meaningful responses to the questions have been included in the data presented and therefore every question will not be reflected on and analysed equally. Only fourteen of the twenty parents/carers completed the pre-intervention questionnaire. The staff, when questioned about the low level of feedback, replied that this was in fact a good level of response, as in the past the parents had frequently cited their lack of facility in English, time restrictions and travel arrangements as reasons for their non-engagement in school projects.

In contrast to the children attending the Language Unit, the parents of the Montessori children who did respond noted that their children had all begun to walk between 10-14 months and had not experienced any difficulty. Only Patrick's mother (M2) remembered that his first year had been a struggle owing to his lack of strength and balance. He had found walking problematic and only started to do so at 20 months. She also noted that he experienced significant difficulty dressing himself and managing cutlery and demonstrated no positive engagement with books or writing materials. The other Montessori parents reported no problems in these areas.

In contrast to the parents of children attending the Language Unit, whose overriding concern was their children's happiness and welfare, the Montessori parents responded that achievement was their priority. Their answers ranged from: 'She must learn to speak at least one other language fluently and reach her full potential' to 'I want him to have a proper academic education and learn a musical instrument.' Patrick's mother's ambition was (in concurrence with the parents of children attending the Language Unit) for him to 'grow up to be a happy, healthy, well-adjusted, moral person.'

## **5.1 Questionnaire: Staff**

Only *meaningful* responses to the questions have been included in the evidence presented and therefore not every question will be reflected on and analysed equally.

### The Language Unit

Whilst the Nursery staff responded that they were satisfied with the opportunities offered to the children to enhance their fine-motor coordination and believed the equipment available for outdoor play was adequate, the movement tapes they had tried had been unsuccessful and they were frustrated that they had neither the experience nor knowledge to pursue this activity further.

Nicky's main concern at this stage of her career was the possibility of three-year-olds entering the nursery in the immediate future. She was unsure whether she would be expected to accept those who had already been diagnosed as experiencing language difficulties for Speech and Language Therapy, as she had no practical training for this age group. She was also unsure as to how therapeutic guidelines may be accommodated if this occurred and if the added demands of the curriculum would increase the pressure on these children. Parental anxiety also played a significant role in exacerbating her level of concern. She responded that frequently the parents expected her to 'cure' their children's language difficulties instead of considering therapeutic interventions within the school environment as primarily a means of language support.

### The Montessori nursery

In contrast to the opportunities provided by the SLT nursery, the Montessori setting offered few resources to extend the children's gross-motor skills. The staff recognised this as being problematic, as not only were they failing to implement Government guidelines, they were also failing to adhere to Montessori principles. They did acknowledge that a significant imbalance existed between their emphasis on fine-



motor coordination and curricular skills and their lack of practical involvement in other areas of development.

In their responses to the questionnaire the staff acknowledged a range of difficulties they experienced in the nursery setting. They noted that the number of children in each class (twenty) was too large to implement effectively the Montessori 2.5 hour 'work cycle.' The age at which a minority of children entered the school (2.9 years) was too young to engage effectively with the Montessori materials available and within the entire school no language support system was in place to assist the majority of children for whom English was a second or third language. They felt undervalued by the parents, who often did not co-operate if essential forms needed to be signed or appreciate the children's work that was sent home. Finally, the general consensus was that they did not *teach* enough and believed that their main role was essentially one of 'childminding.'

Kate confirmed their views but stressed that the overriding problem the children experienced on their entry to the reception year was their low level of communication skills. Their curricular skills were more than adequate to manage the demands of the curriculum, but they were compromised to a significant degree by their lack of experience in communicating in English and minimal experience of working as a group. She also responded that the discontinuity between the Montessori materials available in the nursery and the educational materials used in reception classrooms only further exacerbated the difficulties the children experienced.

## **5.2 Observational Visits**

### **The Language Unit**

The two observational visits organised within the nursery highlighted the wide range of difficulties experienced by the SLI children attached to the Language Unit. These were related primarily to the level of independence and skills required of them to manage a wide range of situations throughout the day; taking off their coats, changing their shoes and remembering which peg belonged to them were all problematic and a significant number of the SLI children needed assistance. The other nursery children

managed these tasks without difficulty owing to their superior fine-motor skills and confidence. During the first period the SLI children were encouraged to join in activities that had been chosen by the Nursery staff. The nursery children, without exception, settled to completing puzzles, modelling playdo and cutting out shapes. The SLI children, meanwhile, chose non-directed activities that they were able to engage in independently, these included bathing the dolls, playing with the cars and building sandcastles.

Minimal verbal interaction was noted between the nursery and SLI children or between the Nursery staff and the latter group. So long as they remained quiet and occupied, the Nursery staff did not consider it a priority to engage with them either physically or verbally. At no time were these children actively encouraged to join the others or asked to try a different activity from those they chose (according to the staff) on a regular basis. Nicky was also not invited to observe them during this time and was only summoned from her office if they became difficult or disruptive. A significant degree of tension was noted between the Nursery staff and Nicky during these visits concerning areas of responsibility. This became ever more apparent as the study progressed.

Throughout the visits it was observed that the SLI children were uncomfortable with close proximity to other children and loud noise. The former was evident during registration and story-time when the children were asked to sit together closely in the book corner, and the latter was apparent during indoor play and music sessions. The passive attitude by the staff towards the SLI children was confirmed by observations made during the remaining time of the visits. This group were afforded a significant degree of freedom to choose their own activities; effectively, they were left to their own devices. Nathan (L1) played with the dollies for a significant period of the morning and Cameron (L2) played with the cars. No attempt was made by the Nursery staff to engage these children in any curricular activities.

### The Montessori nursery

The Montessori nursery provided contrasting findings at the pre-intervention stage. The level of independence required of the children was accommodated by them with ease. They all managed the zips and buttons of their coats, remembered their pegs and had no difficulty in choosing their own activities at the start of the day. No large play (sand, water, construction) was available to them, yet they all engaged

positively with the Montessori materials taken from the shelves situated around the classrooms. The staff interacted in English with each child individually and the general atmosphere in the classrooms was calm, quiet and purposeful. No equipment was evident during outdoor playtime for the children to practice gross- motor skills such as throwing, catching or climbing and the staff were insistent that the children remained clean and tidy.

One child (Patrick, M2) had been diagnosed recently as having a six month language delay. He demonstrated a similar level of difficulty as the children in the Language Unit in accommodating the level of independence and fine-motor skills necessary to complete tasks that included cutting, glueing and threading. In contrast to the SLI children attending the Language Unit who experienced ongoing assistance from Nicky, Patrick was offered no language support within the school environment. He was observed to be aggressive towards his peers if they encroached on his space or touched his Pokemon Cards, and was isolated during outdoor playtime. The general attitude of the staff towards him was (in concurrence with that of the Nursery staff towards the SLI children attending the Language Unit) one of resigned tolerance rather than positive action. Patrick was observed to spend a significant amount of time occupying himself with his rucksack and Pokémon Cards, while his peer group practiced their writing and number work. This was a similar behaviour pattern to that observed in the SLI children attending the Language Unit

### **5.3 Conversations**

#### **The Language Unit**

Conversations took place on an informal basis after the collection of questionnaires and observational visits and before the start of the movement intervention program. Data gained further confirmed areas of difficulty experienced by the children and the tension that existed between members of staff. Nicky felt that the staff were often insensitive to the particular needs of the SLI children, and the staff believed strongly that they did not possess either the training or experience to manage their behavioural difficulties within the classroom.



The lack of communal knowledge relating to the children was also revealed to be problematic. The Nursery staff did not have time to observe therapeutic sessions or spend time with the parents of the SLI children to discuss their particular difficulties, and Nicky was actively discouraged from joining the children in the nursery or observing them at play. In a group meeting with the participant-researcher, Lucy, the staff and Nicky were made aware of the two areas of language development on which the program focused, these were *curricular* and *communication* skills.

#### The Montessori nursery

A meeting was arranged by the Head Teacher of the Montessori nursery, between the staff of all the Nursery classes, Kate and the participant-researcher in order to clarify the timing, staffing and individual children involved in the study. During the meeting they were advised as to the focus of the study. The staff revealed their concerns that the movement program may disrupt their tightly organised timetable and warned that the attendance record of a minority of children chosen to join the participating groups was poor.

Informal conversations were conducted with the teachers from the four classes to acquire further information regarding the children in both groups. This was particularly relevant to Patrick (M2) in the light of evidence gained during observational visits. His class teacher believed that the movement program may be of benefit to him, despite the misgivings of the Head Teacher that his behavioural problems would be disruptive and difficult for the others in his group to accommodate.

#### **5.4 Pilot Sessions**

The pilot sessions were conducted against the background of evidence acquired in observational visits, questionnaires and conversations. It was not possible to videotape these sessions as not all the consent forms (Appendix 4) had been completed. One session was experienced by both groups in each setting to determine the following: suitability of venue, level of assistance required, suitability of clothing, availability of materials and the structure and length of the sessions.

### The Language Unit

Lucy (Head of Language Services for the local borough) had expressed reservations concerning the use of Nicky's therapy room as the venue for the program. She was concerned that the small area could have a negative effect on the delivery of the sessions and that the children's previous experiences within that environment comprised concentrated, rigorous therapeutic interventions. During the ten weeks of the movement program they would be required to change from one expected behaviour pattern (therapy) to another (movement program) without difficulty. Lucy made it clear that this could not be allowed to have a negative effect on the therapeutic process. However, Nicky reported that during the week following the pilot sessions and before the implementation of the movement program the children had experienced no significant difficulty in returning to required 'therapeutic behaviour.' Lucy therefore agreed that the therapy room was a suitable venue.

It became clear to Nicky and the participant- researcher during the pilot sessions that children required a higher level of assistance than had been suggested previously. Nicky and the participant-researcher asked the Head Teacher to provide additional help each week from the members of staff on duty. This arrangement had unexpected advantages; not only did it involve the Nursery staff more closely with the SLI children but also provided an additional source of evidence as to the effectiveness of the sessions. In addition, the presence of another member of staff gave Nicky an invaluable 'sounding board' between sessions and ameliorated the tension that existed between the staff. It was agreed by Nicky, the Head Teacher and the participant-researcher that a flexible approach to timing should be adopted during the initial weeks of the movement program.

### The Montessori nursery

The pilot sessions experienced by the children in the Montessori setting were delivered in the light of evidence acquired previously. In this setting it was difficult to determine a suitable venue owing to timetabling demands and cleaning rotas. Within stringent guidelines two classrooms were made available. Polaroid photographs were taken of each classroom to ensure materials were replaced accurately. The structure and timing of the three phases of the sessions was not assessed as being

problematic for the children involved, but the absence of suitable clothing was highlighted and the staff consequently reminded the parents to dress their children appropriately.

The level of assistance required to ensure the effective delivery of the ten sessions was considered by the participant- researcher suitable for groups M1 and M2 but Patrick (M2) clearly needed individual care. With the agreement of the Head Teacher, Pat (his classroom assistant) joined him. Ultimately, however, this had a negative effect on the level of assistance she was able to offer the participant-researcher throughout the program.

In both settings materials were freely available for the children to use during the third 'recording' phase of the sessions. The experience of the Initial Assessment Procedure (IAP) that was completed by all children prior to their participation in the movement program was influenced by evidence gained during the pre-intervention stage of the study. This process therefore implemented the principles of action-research methodology. All data, in concurrence with the action -research cycle, influenced the development and implementation of the IAP.

## **5.5 Summary**

There was evident tension between the Nursery staff and Nicky concerning undefined areas of responsibility for the SLI children in the school setting, particularly relating to discipline and behaviour. Unresolved difficulties concerning the practical inclusion of the SLI children and parental anxiety concerning their future schooling affected the learning opportunities they experienced and their social development. In the Montessori nursery there was evidence of conflict between the delivery of the Montessori curriculum, the pressure to accommodate Government guidelines and unmanageable parental expectations. The Montessori staff were frustrated by the absence of a language support system within the school and the consequent negative effect on the smooth development of their communication skills.



## **RESULTS FROM THE INITIAL ASSESSMENT PROCEDURE (IAP)**

This section aims to report on the results of the Initial Assessment Procedure (IAP). These findings were used to develop the movement intervention program that was delivered in both settings. For a description of the tasks and the criteria on which the children were scored see Appendices 5A and 5B respectively. Appendix 5C relates to the criteria on which their writing and drawing evidence was based. Appendix 5D relates to fuller evidence of the IAP. Appendix 5E relates to the evidence from the Montessori setting for the writing and drawing evidence.

Table 5.1 shows the scores of the children in both the SLI and EAL groups for the 21 tasks included in the Initial Assessment Procedure (IAP). Appendix 5D provides a complete table of results.

**Table 5.1**

**IAP results for Curricular and Communication Skills**

<u>Tasks</u>		<b>SLI</b>	<b>EAL</b>
<u>Curricular skills</u>			
1	Peel off large red stickers, place on card	3.0	2.0
2	Peel off small green stickers. Cover up black dots	3.4	2.0
3	Unscrew a small pot take out one grain of rice	5.4	1.2
4	Unwrap a sweet. Make a tower with the remainder	4.0	1.0
5	Do up a shoe buckle	4.8	1.0
6	Place 4 hair grips on the edge of the card	5.0	1.0
7	Catch or pop a bubble	2.9	1.0
8	Climb unaided onto a small table	2.9	1.0
9	Balance on one leg unaided on the floor	5.5	1.0
10	Jump unaided and without music	2.4	1.0
11	Run unaided and without music	2.7	1.0
12	Perform a sequence of 3 movements. No visual cues	3.9	2.7
13	Repeat the sequence with visual cues	2.0	1.0
14	Clap to the beat	5.0	1.0
15	Jump to the beat	5.0	1.0
<u>Communication skills</u>			
16	Form a circle, hold hands move right and left/ in and out	2.9	2.8
17	Wave across the circle to each other and maintain eye contact	2.9	2.8
18	Make a 'tower of hands' on the floor	2.9	2.8
19	Run around the table. Wait for a turn	3.1	1.0
20	Stand still on the table. Jump down with assistance	3.1	1.0
21	As a group carry the table to the side of the room	3.1	1.0

The following section of the study will examine in detail the findings of the IAP and the possible reasons for the results.

## 5.6 The Language Unit: Tasks 1-7

Six of the ten children in groups L1 and L2 experienced difficulty performing the first two tasks. (1. Peel off large red stickers and place at random on a card. 2. Peel off four small stickers and cover up designated dots on the card). Four of these children produced scores of 4 for both tasks, the remaining two scored 3 and 5 each for the tasks. The four boys who scored 2 on the initial two tasks possessed a higher level of *oral-motor* skill than the other children. Merriman (1992) suggests that oral-motor skill may have a closer relationship with fine-motor coordination than gross-motor coordination and the scores achieved by this particular group of boys support this hypothesis.

As the children completed these tasks they employed a variety of strategies to place the stickers on the paper: holding the stickers in the air, pinning them to the table with one hand and using the other to peel them off, or using both hands simultaneously to achieve the same effect. The most significant difficulties they experienced were assessed to be lack of 'handedness' (they were unable to decide which hand to use to peel off the stickers) and a low level of fine-motor coordination (using the requisite grip with which to peel off the stickers was problematic).

The parents/carers in response to the questionnaire (Appendix 3) reported that fine-motor coordination was problematic for their children in daily life and that this had a negative effect on the development of their independence and self-confidence. These difficulties had also been noted by Nicky during language therapy sessions and by the Nursery staff at school. This evidence therefore contributed to the triangular verification of data that was implemented throughout the study.

Tasks 3 -6 (3. Take a grain of rice out of a small pot. 4. Unwrap an opal fruit sweet. Make a small tower with the remainder of the packet. 5. Do up a shoe buckle. 6. Put four hair -grips onto a piece of card) proved to be the most problematic for both groups of SLI children. These tasks required a degree of fine-motor coordination, visual skills, sequencing ability and concentration to succeed.

Eight of the ten children did not attempt the third task and therefore achieved a score of 6 respectively. The two children who completed the task scored 3. Unscrewing the lid demanded a twisting action of the



wrist and use of the pincer grip was required to take out one particular grain of rice. Sustained foveal focus was necessary to complete the task and a degree of sequencing ability was demanded to perform the activity in the correct order. The *combination* of skills required to complete these tasks was challenging for this group and was a determining factor in their low scores. The two children who did open the pot subsequently had difficulty employing the pincer grip to take out a grain of rice and chose to pour the entire contents onto the page instead.

Eight of the ten children completed the fourth task. Two children Luke (L1) and Jamie (L2) did not attempt the task and therefore scored 6. In group L1, Nathan, Ellie and Jack scored 4 and Arron scored 2. For group L2, Cameron, Christopher and James scored 3, Billy scored 5 and Francis, 2.

For the majority of children (as in tasks 1 and 2), who did not achieve a score of 1 or 2 for this particular task, their area of difficulty was 'handedness', sequencing ability and the maintaining of foveal focus. They employed a range of strategies to complete the first component of the task: they used their teeth to assist in taking off the wrapper, held down the sweet on with one hand on the table and used both hands simultaneously to take off the wrapper. Foveal focus was difficult to maintain for all children and they frequently looked up and blinked. Although they were all familiar with the action of unwrapping sweets and completed this component, making a 'tower' with the remainder of the packet proved more difficult as this task required a significant degree of manual dexterity, precision and concentration. All the children placed three or four sweets on top of each other but were unable to accommodate any more as their 'towers' continually fell over.

Only 2 of the ten children completed the fifth task successfully and scored 2. Two other children scored 4. The majority of six children scored 6 as they did not participate in this activity. In contrast to the sweets that were used as apparatus in task 4, shoe buckles were unfamiliar to the children as they all wore trainers that were fastened with velcro or laces.

To complete this task required sequencing ability, fine-motor coordination and an even greater degree of foveal focus than that required for the first four assessment tasks. In task 1 the stickers were large (40 mm

diameter) and the level of close focus vision demanded to place them on the paper was manageable for the children. For task 2 the stickers used were significantly smaller (8mm diameter) and the children were required to sustain close focus for longer in order to place them accurately over the black dots. In task 3 taking one grain of rice from the pot challenged focusing ability further. Finally accessing a very small (1mm diameter) buckle hole required not only sustained foveal focus but a high degree of fine-motor coordination, 'handedness' and sequencing ability.

These tasks were therefore designed to challenge specific skills in a measured and finely graded sequence. The children were observed in the nursery and during therapy sessions to be reluctant to engage in activities that required a high level of competence in these areas or with which they were unfamiliar. Their inability to complete these tasks or to achieve a high score therefore supported pre-intervention findings.

Five of the ten children attempted the sixth task. Three from this group were in group L1. Nathan and Ellie scored 4 for this task and Arron scored 2. Francis (L2) and Christopher scored 2 respectively. Five children scored 6 as they did not participate in the task. This activity was specifically included as it was unfamiliar to the children and demanded fine- motor coordination, use of the pincer grip, sequencing ability and foveal focus to ensure success. The primary difficulty the children experienced who completed the task was maintaining the pincer grip for the requisite length of time and holding their hands steady as they pushed the grips onto the card.

Three of the ten children (Luke L1, Cameron L2 and James L2) experienced significant difficulty completing task 7 (catch or pop a bubble) and each achieved a score of 5. Seven of the ten children however completed this task competently and scored 2. This task was included to assess visual tracking ability, timing ability and coordination as they popped the bubbles. These skills are all closely linked to the acquisition of early literacy. The relative high rate of success may have been influenced by their familiarity with the activity as Nicky frequently used bubbles in therapy sessions to enhance oral -motor skills. The most difficult components for the three children who scored lower than their peer groups were focusing on particular bubbles to pop and then coordinating their hands in order to do so.



### **5.7 The Montessori nursery: Tasks 1-7**

Nineteen of the twenty children attending the Montessori nursery experienced no difficulty in completing the first two tasks of the IAP and performed competently and with confidence. Twelve of this group scored 1 for the initial task, the remaining seven scored 2. For the second task, the scores were the same as for the first. However, Patrick (M2) produced scores of 4 for the first two tasks. In common with the children who attended the Language Unit, he experienced problems with 'handedness', coordination and the sequencing of movements.

Sixteen of the twenty Montessori children scored 1 for task three and a minority of three children scored 2. Patrick again produced a lower score (4) for this task. He required a longer period of time and on-going verbal support to complete the task. He both experienced difficulty sitting still and concentrating on the activity. Nineteen of the children scored 1 for task 4. Patrick had significant difficulty unwrapping the sweets and only managed to put three sweets on top of the other.

Fifteen children scored 1 for tasks five and six and four scored 2 for these activities. The shoe buckle task did not cause difficulty despite its unfamiliarity to the boys in the groups, and they completed the hair-grip task with confidence. In contrast Patrick did not attempt the tasks that his peer group had completed with ease and therefore scored 6. Task 7, in which they were asked to catch or pop a bubble with their hands, 19 children achieved a score of 1. Patrick found the task of following a specific bubble challenging and was not able to coordinate his hands in order to pop one.

### **5.8 The Language Unit: Tasks 8-11**

Tasks 8 -11 (8. Climb unaided onto a small table. 9. Balance on the table unaided. 10. Jump unaided and without music. 11. Run unaided and without music) were designed to assess balance, gross- motor coordination and overall body strength. Evidence acquired from the questionnaires and observational visits suggested that the development of personal independence was not only affected by the children's low level of fine-motor skill but that opportunities afforded them at home and at school were also dependent on their level of gross- motor ability.



Eight of the ten children performed task 8 successfully. In group L1, Arron and Jack scored 2 and Ellie and Nathan scored 3. However, Luke (who scored 5 for this task) was very anxious about lifting his feet off the floor and lay across the table instead. In group L2, all the boys scored 2 except James who did not attempt the task and therefore scored 6. This particular group of boys demonstrated a high degree of upper-body strength and gross-motor coordination.

In contrast to their behaviour during the assessment procedure in which the climbing task was performed without significant difficulty, the children had been observed in the playground to use the large apparatus infrequently and were not competent or confident to climb above a certain height. Adequate opportunities to rehearse their climbing skills were not afforded to this group of children due to the size and nature of the available apparatus. The majority of eight children stood still on the table with their feet together and looked at themselves in the mirror without needing assistance. This task was included as a preparatory movement for the ninth task.

Five out of ten children did not attempt the ninth task (lifting one leg off the table and balancing on the other leg unaided). The group of eight children who had completed the eighth task without difficulty and who were unable to perform this particular balancing task included those children whose parents and teachers had also observed their difficulties learning to swim and peddle their bicycles. The five children who completed this task were not confident in doing so and it was necessary to hold their hands as they lifted one leg. Owing to the fact assistance was offered the children scored 5 for this task.

Seven out of the ten children performed the jumping task (without music) successfully. In group L1 Arron scored 1 and Nathan, Jack and Ellie scored 2. Luke scored 4. In group L2 Billy and Francis scored 1, Cameron scored 2, Christopher scored 3, and James scored 6 as he did not attempt the task.

Although the task was completed successfully by the majority of the children and this was reflected in their scores, the *quality* of their movement was immature. In Merriman's (1997) study he concluded that the difference in scores achieved by between children with and without SLI on a standing long-jump test

was related to the *qualitative* component of their performances, not the quantitative. The children who completed the jumping task included in the IAP were unable to remain on one spot or keep their legs together as they jumped. Their upper bodies tipped forward, resulting in their chins thrusting outwards to assist balance. The criteria adopted to score their assessments included a specific qualitative element for tasks ten and eleven and therefore their scores for these tasks were valid.

Eight of the ten children performed the running task without difficulty. In group L1 Arron scored 1, Nathan, Ellie and Jack scored 2 and Luke scored 3. In group L2, Billy and Francis scored 1, Christopher scored 3 and James and Cameron scored 6 as they did not attempt the task.

Although the running task was completed successfully by the majority of children, the seven individuals who did not achieve a score of 1 displayed a less mature style of performance than the three children who did gain a score of 1. This was evident in the quality of their movement as they ran with relatively straight legs and left their arms behind their bodies, in contrast to those who displayed a more mature style of running by bringing their knees forward and coordinating their arms and legs.

### **5.9 The Montessori nursery: Tasks 8-11**

Nineteen of the twenty children attending the Montessori nursery experienced no difficulty completing tasks 8 -11 and performed to a high standard. Their high degree of gross-motor coordination was evident as they climbed onto the table with confidence and did not require assistance to balance either on two legs or one. The majority of 19 children scored 1 for the tasks.

During the tenth task the majority of nineteen children kept their feet together, their heads upright, used their arms to assist height, and stayed in one place. Their running style was mature, fluid, coordinated and balanced. Their heads were held in the correct position and they performed at a speed suited to the length of the room. Nineteen children achieved a score of 1 for tasks ten and eleven.

Patrick (M2) however did not achieve as high a score as his peer group on tasks 8-11. He was unable to climb onto the table and lay across it instead. He did not attempt the ninth task and he therefore scored 6.

He scored 3 for the jumping task as he jumped with his legs wide apart to assist balance and was unable to stay in one place. He also scored 3 for the running task as he thrust his head forward and his arms behind him to prevent his falling. His scores for these four tasks related closely to those achieved by the children attending the Language Unit

#### **5.10 The Language Unit: Tasks 12 -15**

Tasks 12 -15 of the IAP (12. Perform a sequence of three movements with no visual help. 13. Perform said sequence following visual input. 14. Clap to the beat. 15. Jump to the beat), were included to assess aural and visual decoding, rhythmic awareness and timing ability. The SLI children were reported by the staff and observed during the initial visits to experience difficulties in the nursery if required to respond to instructions that did not include a visual component. During music sessions the coordination of words and actions was noted to be problematic and they experienced significant difficulty keeping time when using the instruments.

Seven of the ten children completed both the decoding tasks while a significant minority of three did not participate. In group L1, Nathan, Arron and Ellie scored 3 respectively for the task that assessed aural decoding but scored 2 respectively for the visual decoding task. Luke scored 4 for the former and 3 for the latter. Jack did not attempt either task and scored 6.

In group L2, Cameron and James did not attempt the aural decoding task and therefore scored 6. Billy scored 3, Francis 1 and Christopher 4. The scores achieved by this group were higher for the visual decoding task. Cameron and Christopher scored 3, Billy 2 and Francis again scored 1. James did not attempt task twelve either and again scored 6.

The scores achieved by the children supported the evidence collected prior to the IAP. Their response to visual cues alone produced higher scores than those gained when reacting to verbal cues alone. The open-plan configuration of the nursery environment may have had a negative affect on the children's ability to



develop their listening and discriminatory skills. Therefore they may have relied to a greater degree on visual skills to process instructions and information.

Four of the ten children completed task 14 and five of the ten completed task 15. Weikart (1987) suggests that 'rhythmic competency' is fundamentally related to cognitive achievement, and Kuhlman and Shweinhart (2000) also have evidence to support the existence of a close relationship between timing ability, school achievement and literacy. The children attending the Language Unit who completed these tasks experienced significant difficulty in doing so. Nathan, Ellie and Luke scored 4 on task fourteen, Arron scored 2 and Jack 6. They achieved the same scores for task fifteen. For group L2, none of the boys attempted either task and scored 6 for both.

The children who did complete the tasks experienced difficulty maintaining a steady beat for an extended period of time (20 seconds) and bringing their hands together in front of them to clap accurately and rhythmically. Nicky reported that, for the SLI children, developing an awareness of the rhythm and timing of verbal interaction was problematic and they were reluctant to engage in exercises that challenged these skills during therapy sessions. It was significant that seven of the ten children completed the jumping task *without* music, yet only five of the group did so when music was added. Kuhlman and Shweinhart (2000) suggest that boys experience greater difficulty than girls responding to a steady beat embedded in music but perform better than girls if exposed to a metronome beat. This may have influenced the low scores achieved by the children in addition to their unfamiliarity with the task.

### **5.11 The Montessori nursery: Tasks 12-15**

For the Montessori groups of children the only area of difficulty revealed in this section of the IAP was related to the *aural* decoding task. Two of the twenty children scored 1 for this task (they were native English speakers) and seventeen scored 3. In contrast their scores for the *visual* decoding task were significantly higher, with nineteen of the twenty children scoring 1. The majority of nineteen children performed well on the rhythmic competency/timing tasks and scored 2. However, Patrick (M2) was unable to achieve the same standard and produced a score of 5 on these tasks that again mirrored those gained by the SLI children.

### **5.12 The Language Unit: Tasks 16-21**

Tasks 16 - 21 (16. Make a circle holding hands. Move round one way and another/in/out. 17. Wave across the circle to each child. 18. Make a tower of hands on the floor. 19. Run around a table. 20. Take turns to stand on the table with assistance. Jump down from the table with assistance. 21. Help carry the table to the side of the room). These tasks focused on the social and communication skills that evidence gained from observational visits and conversations had suggested were limited in the children who attended the Language Unit.

In group L1, four children achieved a score of 2 for each of the six tasks and Nathan scored 3 for tasks 16-18 as he was unable to remain within the circle for an extended period of time. He did, however, score 2 for the final three tasks. In group L2, Francis and Cameron did not complete any of the tasks and scored 6. Billy scored 1 for each task and Christopher, 2. James scored 3 for tasks 16-18. He did not attempt the final three tasks.

Three of the ten children therefore did not attempt this component, but the remaining seven children produced significantly higher scores for each of the tasks. Qualitative evidence acquired previously suggested that the children's response to the tasks would be significantly less positive. All these tasks required a degree of sustained eye-contact, turn-taking, cooperation, listening ability, touch sensitivity and spatial awareness to succeed.

Their high scores for the *communication* component of the IAP may have been affected by the following factors.

First, the entire IAP specifically excluded an element of verbal performance, thus any fear of failure was minimised. Although the children were not assessed for oral competency or expression, the level of verbal *interaction* between them as they worked together was significant. The fact that verbal expression was *incidental* to the assessment tasks and not specifically highlighted encouraged the children to use the

communication skills they already possessed to engage effectively as a group. Nathan (L1) encouraged Luke (L1) to join in building the tower of hands and Christopher (L2) held James (L2) hand and helped him to run around the table. Nicky subsequently revealed in her diary that she had not observed this level of sensitivity between the children before.

Second, the small size of the venue in which the IAP was delivered (Nicky's therapy room) minimised outside noise and distractions. The children were therefore able to listen clearly to instructions without needing to filter out background sounds. They were also able to concentrate on single tasks and complete them at a manageable pace.

Third, the SLI children had minimal experience of working together as a group. Completing tasks with those of similar language ability levels was a mutually supportive experience. The tasks included in the IAP that emphasised communication skills were manageable and accessible. Each child was given the time and necessary level of support to succeed.

Their scores for the communication component of the IAP provided evidence to suggest that the children attending the Language Unit possessed a degree of basic interactive skills that had not been observed during the observational visits.

### **5.13 The Montessori nursery: Tasks 16 -21**

Five of the twenty children in the Montessori groups experienced difficulty completing the final six tasks. They scored 5 on tasks that demanded cooperation as a group. Their scores were lower than those achieved by the children who attended the Language Unit. This group included Gaetan and Ali from group M1, Patrick, Mohsen and Paul from group M2. The reasons for their low scores may be related to unfamiliarity with the children in their groups and the lack of a common language. Patrick did not complete the final two tasks and was the only child from the Montessori nursery to score 6 on any task.



The scores for the final six tasks achieved by the children attending the Language Unit suggest that Patrick may have performed to a higher degree within a smaller and more familiar group and with fewer distractions to affect his level of concentration.

#### **5.14 Two-Dimensional Evidence : writing and drawing**

The two-dimensional evidence the children produced related to four of the first seven curricular tasks that were assessed during the IAP. This evidence was evaluated on a scale of 1 to 4 (Appendix 5C).

In group L1, Ellie and Arron scored 2 for their paper based evidence on all the assessment criteria. Nathan, Luke and Jack achieved a score of 3 on four of the criteria but as they did not engage with the resources they scored 6 on the third and sixth criteria in which use of colour and representations were assessed.

For group L2 the pattern of scores was similar. All the boys except Francis (who scored 2) scored 6 on the tasks that included use of the resources as they did not engage with the materials.

During the time between the first half of the IAP in which curricular skills were highlighted and the second half during which the tasks were designed to evaluate communication skills, a box of felt-tips was available for the children to use. There was no active encouragement from the participant-researcher or attending adults and the children were given the freedom to use the resources as they wished or decline to do so.

Six of the ten children who attended the Language Unit did not engage with the materials. The four children who did use the felt-tips had difficulty taking the tops off and deciding which end to use. 'Handedness' and maintaining the pincer grip was also problematic. Nathan (L1) frequently changed hands and Luke (L1) held the colours with an inappropriately light grip. Francis (L2) was, in contrast, able to hold the pens correctly and wrote the first two letters of his name backwards. The drawings

produced by children in the language groups included circles, lines and dots. They made no attempt to draw themselves or any representations of familiar objects or experiences.

Their placement of the *red* stickers showed a higher degree of spatial awareness that was not reflected in their choice of position for the small green stickers. Covering up the dots was not achieved with the requisite degree of precision. Placing one grain of rice on the page was challenging and those who did attempt the hair-grip task did not space them accurately on the page.

The Montessori groups experienced no difficulty using the felt-tips and all the children were able to access the material with ease. This may be related to their previous experience and daily practise with the materials both at home and in school. The large red stickers were spaced evenly by all groups and the dots were covered accurately by the small green stickers. They had no difficulty taking the rice from the pot or placing the hair -grips in an even formation on the paper. Their choice and use of colour was good and they held the pens in the requisite grip. Representations of themselves and familiar objects were included in their work. Fifteen of the twenty children scored 1 on all criteria. The children who did not score as highly as on the criteria used to assess the two-dimensional evidence (and achieved a score of 2) did so because their spacing of the stickers was not as accurate or even, their use of colour was not as mature and they did not include representations of themselves, familiar objects or experiences.

In the two-dimensional evidence acquired from Caroline and Patrick from group L2 the difference in levels of skill and ability may be clearly observed. This may be viewed in Appendix 5E.

#### **Caroline. Two-dimensional evidence from the IAP**

Caroline's evidence suggests that she possessed a high standard of fine-motor skill and sequencing ability. Her stickers were precisely placed and covered and her choice and use of colour was mature. She drew representations of her family (mother wearing moon boots and her sister with long hair) and a slide. Her two-dimensional awareness was therefore mature as she used her 'life experiences' to imprint her identity on the material. She used the paper space well and evenly placed her figures. She was also able to

articulate clearly, without prompting, who the figures represented. Caroline's work supports Hawkins' (2002) interpretation of children's drawings as not simply existing as 'acts of self-expression' but are rather 'social acts of connection and identification' (Hawkins 2002 p13). Caroline brought her family and experiences into her school setting and imprinted the importance of these to her self-concept in a permanent record.

### **Patrick. Two-dimensional evidence from the IAP**

Patrick, in contrast to Caroline, had difficulty performing the paper-based tasks of the assessment. His large stickers were unevenly spaced and he was unable to cover the dots with the degree of accuracy expected. Taking the grain of rice from the pot was completed with difficulty and he did not attempt the hair-grip task. Taking the tops off the felt-tips was frustrating for him and he was unable to sustain the requisite grip or to decide which hand to hold them in.

His two-dimensional awareness was therefore limited in comparison to Caroline. As he was drawing he said, "Make a train, a big train." "This has worms". "Worms are good". When asked where these objects may be on the page he was unable to respond. His 'connection and identification' with his 'culture', that Hawkins (2002) considers to be of fundamental importance to early learning, was not in evidence in his engagement with paper-based material

### **Summary**

The IAP produced evidence that informed the development and delivery of the Medau movement program in the following ways. First, the curricular skills highlighted in tasks 1-15 demonstrated the significant difficulties that children with SLI have in this area in contrast to those children who have no diagnosed language problems. The SLI children produced low scores on tasks that required a degree of fine-motor skill, sequencing ability, coordination, 'handedness', foveal focus and timing ability. These skills in turn are closely related to classroom performance and curricular activities.

Pre-intervention evidence from observational visits, questionnaires and conversations suggested that lack of ability in this area may have a negative effect on the children's communication skills and successful



access to the curriculum. Data gained from the IAP of the SLI children supported these initial findings. In contrast, the Montessori groups did not have significant difficulties in this area either during the pre-intervention stage of data collection or the IAP, except Patrick (M2) who had been diagnosed with a six month language delay. His scores closely related to those achieved by children attending the Language Unit.

Second, the communication skills covered in the IAP provided evidence to suggest that the children attending the Language Unit possessed a degree of skill in this area that had been overlooked by the Nursery staff and Nicky. Working together in a small space with minimal distractions provided a mutually supportive environment within which the communication skills they already possessed were revealed. The communication skills of the Montessori children were affected by lack of a common language and not language difficulties. However, the IAP however further emphasised the necessity of enhancing their communication skills in order to achieve successful integration within their nursery classrooms.

The IAP was sensitive to a wide range of competencies. The variations in scores between the children in both settings supported the appropriateness of the tasks included. Critical evaluation of the IAP suggested that the following four refinements may deliver further evidence.

First, an activity is included to assess the *horizontal* tracking ability of the eyes. This may be implemented by the children following a finger or pencil that moves slowly across their eyeline. Goddard-Blythe (2001) suggests that for effective learning to begin the eyes must be able to work independently of the head and body. This test would relate directly to the ability of young children to follow a line of print. The bubble test (task 7 of the IAP) assessed the children's *vertical* tracking ability that relates more closely to numbers and columns. An additional test relating to *horizontal* tracking ability is a recommended addition.

Second, a test may be included to assess the presence of a dominant eye. Although this may not be fully developed until eight years, it affects a child's ability to access linear script as it ensures the print does not

'jump' on the page. This test may be implemented by cutting a small hole in a piece of card and asking the child to pick it up and look through the hole.

**Third**, a test may be included to assess the ability of children to cross the midline of the body. This skill is also intimately related to accessing alphabetic script. Touching one ear with the opposite hand by crossing the top of the head is a simple but effective way to assess ability in this area. Loss of balance and inability to complete the task would indicate difficulties.

**Fourth**, adding the 'Tansley Standard Visual Figures Test' that is used in the assessment procedure used for the Blythe's 'Reflex stimulation-inhibition' program would reveal specific problems relating to pencil and paper tasks. In this test children are asked to copy four shapes (a cross shape, a square, a plus sign and a circle) onto a sheet of paper and are then assessed on appropriate pencil grip and standard of accuracy. For children with no difficulties the square, plus sign and circle should be managed with ease by the age of 4 and the diagonal lines of a cross by aged 5.

As a diagnostic tool that informed the implementation of this specific movement program, the IAP had its strengths. It was simple to administer and required no specialised equipment or training. The tasks included were non-intrusive and included activities with which the children were mostly familiar and practitioners known to them were involved.

Dockrell and Lindsay (2000) state that, 'Narrow diagnostic models do not provide the appropriate information to inform educational practice and support inclusive policies.' The IAP was designed to extend the range of competencies that are highlighted in existing assessment procedures relating to pre-school children and to determine the areas of need for the children in both settings. For the SLI groups these were assessed to be primarily fine-motor coordination, 'handedness', sequencing, timing and visual skills. The communication skills of the SLI groups were evaluated to be of a higher level than previously acknowledged by practitioners involved. Their gross-motor skills were of a similar level of competence to the Montessori groups but their performance was assessed as being less mature in style and quality.

The Montessori groups had no significant problems with curricular skills (except Patrick) and the lower scores achieved by a minority of children on the communication component of the IAP were, (except Patrick), predominantly related to their lack of familiarity working as a group and a shared language rather than any undiagnosed language difficulties. The Montessori children also did not experience difficulties performing the gross- motor tasks.

The two-dimensional evidence provided by the children was gained from their performance on the first seven tasks of the IAP. The SLI children possessed less developed spatial awareness and sequencing ability than the Montessori children and experienced a lower degree of fine-motor coordination. Although the children were not formally assessed for visual skills, the SLI children had significant difficulty maintaining foveal focus, tracking and changing from peripheral to close focus vision at speed. The Montessori children in contrast were not observed to have difficulties in this area.

The development and delivery of the movement intervention program was thus informed by evidence acquired from the IAP. Findings from the movement program itself are discussed in Chapters Six and Seven.

The first research objective was to develop and evaluate the effectiveness of the IAP as a diagnostic tool. Evidence gained from the pre-intervention stage of the study suggests that it was an effective procedure in diagnosing the range and nature of the difficulties experienced by the children.



# **CHAPTER 6**

## **Results**

### **The Language Unit**

## **RESULTS : THE LANGUAGE UNIT**

This chapter discusses the findings from the implementation of the Medau movement program in the therapeutic setting. Evidence was acquired from observational visits, questionnaires, conversations, videotape and diary entries. The findings are reported within the action-research cycle. The five themes that emerged from the study were; conflict, learning environment, teacher direction, transfer of skills and communication.

### **CONFLICT**

#### **6.1.0 Introduction**

The areas of conflict that related to Nicky, the Nursery staff and the SLI children were wide-ranging. Her status within the nursery environment, the delivery of sound therapeutic practice in relation to mainstream educational guidelines and the expectations of parents were areas of conflict noted during the pre-intervention stage of the study and throughout the delivery of the movement program.

#### **6.1.1 Pre-intervention evidence**

Evidence revealed that a significant level of conflict existed between the Head Teacher, the Nursery staff and Nicky concerning areas of responsibility. Nicky was employed by the Local Health Authority to deliver an agreed number of hours' Speech and Language Therapy. She was therefore, in principle, only responsible for the children during these periods and not when they were included in mainstream nursery activities or outdoor playtime. In practice, however, the Head Teacher assumed that Nicky was available at all times to assist with the SLI children if and when the Nursery staff were unable to accommodate their behaviour.

During the two observational visits Nicky was called upon to leave her room on five occasions in order to manage 'her' children. Nathan (L1) continually switched the lights off and on during the registration

period and ran around the room when asked to stop. Nicky was busy writing reports, yet stopped in order to ensure Nathan's engagement in news-time by sitting with him in the book corner. She was also asked twice to 'do something about Luke', who became disruptive when he was unable to remember the correct response to the Head Teacher during registration. Nicky made clear her feelings regarding her relationship with the Nursery staff in the following response to a question from the participant-researcher;

**"I really resent that it's taken for granted I'll step in all the time just because they can't cope. I'm not a teacher and I just don't have the particular skills that are needed to manage the children in the nursery. The children are treated like second-class citizens anyway, but the staff could make more of an effort to work with their difficulties instead of constantly relying on me to sort them out."**

Owing to the absence of skills and experience of the Nursery staff in relation to the SLI groups, Nicky was placed in a situation that did not support either her professional practice or that of the staff. The staff had minimal knowledge of the wider difficulties experienced by the SLI children, and Nicky had scant awareness of the daily problems they faced in the nursery. Communication between Nicky and the staff focused on managing the behaviour of the SLI children and how to accommodate them within the nursery environment. The Head Teacher was primarily concerned that they learned to 'fit in and don't cause any trouble' and that Nicky was available to 'take control if they're being difficult.' The absence of guidelines relating to areas of responsibility was therefore a significant area of conflict in this environment.

In response to the pre-intervention question relating to curricular provision for the SLI children in the questionnaire, Nicky revealed the following;

**'Changes have taken place in response to the new learning goals of a nursery and a recent OfSTED inspection towards a more formal approach (literacy hour, numeracy hour). There is concern where a possibility of three-year-olds entering nursery and accessing a more formal curriculum. General feeling that the balance of play/formal teaching is about right at present, but the new structure has reduced flexibility in the timetable. Lack of time (three hours) can make it difficult to fulfil all areas.**

**SLT would be keen to include/implement an interim stage of structured play-based activities (instead of formal directed teaching or completely self-directed play) e.g. play scripts. Some of the targets are very open to interpretation, e.g. to learn familiar words that they hear and see. We will definitely need to consider this further, especially with relationship to the children with language difficulties.'**



Nicky was also concerned about the possible effect these guidelines would have on parental expectations, and wrote in response to the questionnaire that;

**'In general, yes, they are quite supportive. However there's always a group who push to a higher level than we would recommend. For children with speech and language difficulties it varies between parents and individuals. Parents often need support to understand the educational implications of their child's speech and language difficulties. This is often highly dependent on the parent's level of understanding of their child's underlying difficulty with speech and language. Sometimes parents are led to believe that a school environment will cure the speech and language difficulty as opposed to supporting it.'**

The SLI children were therefore affected by the different agendas of the therapeutic, nursery and home environments. The parent's main concern was that the children acquired the skills necessary to access mainstream schooling without significant difficulty. In contrast, the Nursery staff wished them to 'fit in and behave' regardless of the curriculum they experienced. Meanwhile, Nicky followed standard therapeutic guidelines that needed to be implemented rigorously in order to ensure future funding for the Language Unit. Thus, the movement program was delivered by the participant-researcher against a background of conflicting adult agendas.

### **6.1.2 The movement intervention program : Participant -researcher and Nicky**

Evidence revealed that the principle area of conflict for Nicky was between the demands of therapeutic practice and the nursery curriculum. Throughout the initial delivery of the movement program by the participant-researcher she examined closely the differences in approach to learning between her practice and that of the Medau-based program. After the fifth session she noted the following in conversation with the participant-researcher;

**"I think the main problem is about valuing somebody else's agenda. I think there's a lot of scope for the movement approach in the nursery. We often don't let the children have the time. Teachers are always jumping in to fill the space, especially with the children attending the unit. For all of us there's this feeling that we must elicit to 'get the language out of them'. It's a difficult dynamic because what they really don't want is to be pressurised. Adults are always asking them questions that must be answered like 'What have you drawn?' rather than waiting to be invited to interact."**

**"We as therapists have a very particular agenda and have to account for the progress of each child to the local authority. I think movement bridges the gap between therapy and school quite nicely and that all the children are enjoying the program and being given their freedom. It's so obvious that they can't begin to read for themselves and**

they can't and don't want to write or put things on paper. Movement makes learning immediate and meaningful for them and they can all achieve something.”

The Medau approach to learning was therefore a means by which the process of resolving the conflict between therapeutic and curricular demands was generated. The freedom afforded the children to interact verbally when they were confident to do so, and the absence of pressure to complete oral or paper-based language exercises combined to ensure that the environment within which the children experienced the ten sessions was supportive and sensitive to their needs and abilities. Throughout the program, Nicky also became increasingly aware of the difference in the levels of structure the children experienced during individual therapy sessions, the nursery environment and the movement program. She made the following comments at the close of the fourth session;

“The level of structure that's required from a speech and therapy angle so that the children reach an acceptable level of vocabulary and language is something that doesn't fit comfortably with me as a person and I find it very hard to impose all these structures. I think the big problem about integrating therapeutic work with teaching is that teachers and therapists are trained in such a different way. We always have to work from a deficit model, and a very medical model at that.”

“One way in which we could try to become more integrated is to look carefully at the ways in which we see what specific skills the children need to achieve in a school situation, which you cover in the movement sessions. The therapist can then build on these skills and become more integrated with the rest of the children's educational life.”

After the sixth week of the movement program, Nicky and the participant-researcher discussed the difference in approach between language therapy and the Medau teaching method to the development of communication skills;

Nicky: “We look at developing underlying skills or play skills, but we always teach these skills in a very explicit way. We actually pull out the rules. So *this* situation requires *this* behaviour, so how do you not interrupt a conversation? You have to wait.”

Participant -researcher: “In a movement approach we don't isolate the skills from the situation. Take, for example, when the children swapped their paper bags from their hands onto their friend's hands (week 4). The point of the exercise was to get them to wait, be sensitive to each other and maintain eye contact, *not* to get the bags off their hands perfectly. They *had* to wait and make eye-contact, otherwise the bags would have fallen off.”

Nicky: “I think what we do is isolate the teaching point, take it out of the context, teach it out of context and then put it back into a context.”

Participant -researcher: “What we do in a movement context is set up very specific situations so that the children learn the skill that you want to focus on *incidentally*



without making it explicit or obvious. Then you can address a range of skills in one experience.”

Nicky: “Interestingly, we were doing ‘long’ this week and I thought about how to combine the concept of ‘long’ with some communication work. So we stretched our bodies out long on the floor and then everybody helped make a long path of bricks. They were much more able to grasp this concept having performed it physically and they were much more sensitive about space and each other’s ability too.”

The difficulties the SLI children experienced in developing an understanding of abstract concepts was also acknowledged by Nicky, the Nursery staff and the parents. Nicky explained the problems surrounding the therapeutic approach to resolving these difficulties;

“The way we would come at a concept like shape, we might take one shape like a circle and teach that one concept until we felt it was grasped. Then, and only then, would we move on to look at things that are that shape and are not that shape. As long as they have a negative concept, in therapeutic terms you can move it into other areas.”

“We as therapists talk about giving the children a ‘semantic curriculum’, so the curriculum is totally tailored around the words that the children need to understand. We present the vocabulary and very specific topics like weather, clothes or shape. The idea is that we are making the links for them. So rather than teaching the words that don’t fit together naturally in a topic, we put them in categories and meaning is hopefully accessed through these categories.”

After the fifth session with the participant-researcher she noted the following;

“The last time I did something with sound we did ‘loud’ and ‘not being loud’ and ‘being Mr. Noisy’. I was trying to make them listen rather than lining up the language with direct experience, and I’ve never connected up using their own force for sounds. I’m always having to stick to specific vocabulary and work on the paradigm of ‘being something and not something’, like ‘being noisy and not noisy’.”

The conflict between the therapeutic approach to the understanding of concepts and that of the movement program was acknowledged by Nicky in her diary and during conversations. By the seventh session of the initial program she had begun to resolve her difficulties and gain a deeper understanding of the movement approach to learning. During this session ‘number’ was the theme and the children used paper plates to explore this concept. Nicky made the following comments at the close of the session in conversation with the participant researcher;

“It’s very obvious that their concept of number is limited, but using apparatus that they weren’t threatened by made it more meaningful and gave them really vital visual cues. I think the way these things are presented is crucial. It wasn’t like the usual ‘Come to the maths table now’, it was just an instant and easy way to expose them to concepts they were previously resistant to.”



“It was also great that they added their own ideas - when the plates became steering wheels of tractors and they sat on them to shuffle around the room and laughed. This way of working has been particularly useful for Arron, who would be ‘worksheet king’ given half a chance. Working like this makes him confront the underlying meaning of concepts and it doesn’t concentrate so much on the outcomes or an end product.”

Two weeks later the theme of the ninth session was ‘time’ and balloons were used to extend the children’s understanding of this concept. Nicky noted the following in conversation with the participant-researcher;

“Time is obviously a very, very difficult concept for them. They just can’t understand how long *sounds*, which we’ve been practising this week, have anything to do with ‘a long *time*.’ The clock face is also meaningless to them at this stage.”

“It’s been very useful to have the photographs of me up on the wall each week — it gives them a feeling of time passing, and they’re beginning to use time vocabulary with me, like ‘last week’ and ‘what we’re going to do next week’ and ‘what we did two weeks ago’. I think I will use the balloons again to show them long sounds like S and short sounds like T. They’ll have to keep the sounds going until the balloon reaches the floor, as I thought that was a really good way for them to experience a long/short sound, long time/short time. We might try it with tissues as well.”

For Nicky, the use of manageable and familiar hand apparatus in a learning situation was a new experience. She acknowledged that easily accessible resources accommodated a range of communicative and curricular skills that conventional therapeutic materials were unable to do. She chose coloured bean-bags as her apparatus during the tenth session of her program to develop the concept of ‘same/different’. During this time specific vocabulary that related to the theme was highlighted as the children rehearsed a variety of curricular and communication skills through carefully chosen activities. The following interaction between Nicky and the group was recorded;

Nicky said to Luke: “Can you see two bean-bags that are the same?”

Luke replied: “Them here?” (He pointed to two red bean-bags)

Nicky then asked the group: “Can we all find two red bean-bags?”

Nicky said to Nathan: “Now, what about you, Nathan, can you find me two blue bean-bags? They’re different from the red and green ones aren’t they?”

Nathan asked Nicky: “These ones?” (He successfully picked up two blue bean-bags).

Nicky then said to the group: “Let’s put the same colour bean bags all together now.”

The absence of the 'overlearning' of vocabulary that had been a significant concern for Nicky during the initial program with the participant-researcher had begun to be resolved through her delivery of ten movement sessions. During the third 'recording' phase of her final session she again emphasised the vocabulary relating to the concept of same/different as the children made their books. Nicky: "Jack, fold your paper over so it's *the same* as mine. Luke, why don't you draw a *different* shape underneath? Nathan, please put the tops back on the pens so the tops and bottoms are the *same* colour. Arron, can you get your caterpillars to go *different* ways?"

Her fear of losing control of the children was an additional concern of Nicky's during the pre-intervention pilot sessions. Her therapeutic practice was quiet, organised and methodical in delivery. Music was not featured and as the children rarely worked together, Nicky was not familiar or comfortable with the volume of noise generated by a group of children in a small space. After the first session of the initial program she described the level of noise they created as 'making them freer' and that she was now able to 'see more of their real characters emerging' as they worked with each other physically.

However it was not until her fifth session that Nicky finally became more comfortable with the level of noise generated by the children and used movement as a means to re-focus rather than the therapeutic approach of 'Let's talk about it.' The children were rolling their oranges down a ramp and the noise level was rising to an unacceptable level. Nicky judged accurately the moment to regroup and said, "Quick, put your hands on your heads and sit on the floor." She observed later that;

"I was really surprised at myself that I didn't panic when the noise level became a bit much. I was really pleased that they responded so quickly to what I said and that I didn't waste time explaining why they should be quieter in words, which is what I normally do — you know, explain everything. For me, being spontaneous isn't that easy because of how I've been trained, but I actually did it today and I don't think I'll be so scared now if things get a bit noisy sometimes. It doesn't really matter that much, and they had such a laugh."

The areas of conflict that Nicky acknowledged began to be resolved through her participation in the initial movement program. The relationship between her and the Nursery staff was enhanced by their active involvement together in the sessions. In a learning situation within which the Nursery staff and Nicky were not in control and the participant-researcher was delivering the sessions, both parties worked with



the children and interacted with them in a manner that was infrequently afforded them in daily professional practice. When Nicky delivered the program independently she again had the assistance of the Nursery staff and video evidence revealed an increased level of positive communication between them.

For Nicky, experience of the initial program gave her the opportunity to engage with the children in a manner she was unused to in her therapeutic practice. She acknowledged that by basing the movement program on the physical and communication skills that the children already possessed and not focusing primarily on their difficulties their interactive skills had developed and their confidence to engage with curricular resources had increased. She made the following comments in the final entry of her diary at the close of her program;

‘I have really enjoyed doing the program myself, and I can see now how Medau principles can be applied to standard therapeutic practice. I think it would be really interesting and beneficial in the future to work collaboratively around a vocabulary framework, e.g. Anne Locke’s ‘Living Language Program’ so that children could be acquainted with verbal concepts in sequence through movement activities. I think they have much greater oral competence now and are more confident in their ability to achieve in this area.’

‘I have asked for Nathan to be reassessed on the basis of this, as I don’t think his original assessment accurately reflects his abilities as they are now. I still think Luke is going to have some problems at school, but now I know what he’s really capable of and what he responds to, I can support his teacher for a bit before he starts part-time at a new language unit.’

‘Doing the program with you initially and then on my own has been a very helpful experience for me and I have acquired skills that I wouldn’t have got from any other training. It’s made me realise where the gaps are in my practice and how much more I as a therapist could do to help these children on to the next stage. It’s also given me confidence to give their parents pointers as to what they can do to help them at home and therefore support more effectively what I do here.’

Nicky acknowledged the positive effect of the movement program on the language skills of the participating children and the ways in which the principles of the Medau teaching method may be applied to therapeutic practice. Language therapy remained an essential and necessary element of the children’s timetable, but Nicky began to appreciate that movement-based learning supported and enhanced her therapeutic practice and did not threaten or undermine her professional principles.



### **6.1.3 Summary**

The following paragraph summarises the key findings from the 'conflict' theme related to the SLI groups. The Medau movement program was delivered against a background of conflicting adult agendas. Politically, the differing demands of a therapeutic and mainstream curriculum and parental anxiety caused conflict between Nicky, the Nursery staff and the parents of the SLI children. Practically, areas of responsibility for the behaviour of the SLI children were undefined and were also a source of conflict between Nicky and the Nursery staff. For Nicky the difference in approach to the understanding of concepts between the Medau teaching method and standard therapeutic practice was problematic. The participation by Nicky and the Nursery staff in the initial movement program began to resolve the areas of conflict they experienced previously. Working alongside the participant-researcher afforded Nicky and the staff new opportunities to interact with the children and appreciate their real strengths and abilities. Both parties observed the development of the children's language skills and acknowledged that the Medau approach to learning accommodated and supported their professional knowledge and principles.

## **LEARNING ENVIRONMENT**

### **6.2.0 Introduction**

For the groups of children who attended the Language Unit there was a third, therapeutic environment to be considered alongside that of the nursery interior and the outdoor play area. Pre-intervention evidence suggested there were significant differences between the properties of the three environments and the manner in which the children interacted with adults and their peer groups in each of these settings.

#### **6.2.1 The therapeutic environment**

The physical environment within which therapeutic interventions took place was a small (10ft x 8ft), carpeted room adjacent to the main corridor of the nursery. Two large windows overlooked a fishpond and a two-way mirror covered the length of one wall. Materials were placed in specific boxes around the

room and there were posters on the walls depicting specific oral-motor exercises that the children performed daily. Nicky kept the door closed as the SLI children arrived in the nursery, and this remained the situation throughout the day unless she was asked by the nursery staff to 'manage' individual SLI children. The SLI children were unable to move freely between the nursery and the therapy room and only entered this space for between ten to twenty minutes individual therapy each day.

This area was an unchanging environment and one in which time was tightly regulated. There were also specific expectations of behaviour within the room. The SLI children entered and exited in a quiet and controlled manner and complied with the rules regarding use of equipment. The telephone and the light switches were not to be touched, Nicky's therapeutic materials were 'out of bounds' and they were not allowed to take anything from their individual trays without permission. Pre-intervention evidence revealed that the majority of SLI children were accepting of these rules and respected these strictures without significant difficulty.

### **6.2.2 The indoor nursery environment**

The nursery itself was open plan, spacious and airy with windows all the way round which gave views to the road, the pond and the outdoor play area. There were designated areas for activities (sand, water, dressing up and cooking), but none was completely separated from the other. The SLI children spent the major part of their school day in the main nursery. Apart from a named coat-peg none of the mainstream nursery children was given an individual tray or place to sit that was designated as specifically theirs. The nursery children were only able to move from one area to another if and when the staff decided this was possible and adequate resources were available. The SLI children however were afforded a significantly higher degree of freedom to move from one area to another without restraint.

Pre-intervention observational evidence suggested that this group were more closely connected to the indoor nursery environment than their peer group because they were given the time and opportunity to engage with materials of their choice without adult interference or direction. Nathan (L1) was observed to spend forty minutes in the sand and water area playing with the dolls, washing their hair and making them

beds in the sandpit. Cameron and Billy (L2) made a garage for the cars in another area of the sandpit and constructed a ramp on which the cars were pushed down. This occupied them for twenty-five minutes. Meanwhile the nursery children were engaged in highly organised adult-directed activities; playdo, drawing, peg-boards, puzzles and threading. These children changed activities every fifteen minutes to ensure they engaged with every task regardless of personal choice or completion of the previous activity.

### **6.2.3 The outdoor nursery environment**

The outdoor environment that the SLI children experienced was varied and stimulating. A wide variety of resources were provided for the children and a range of surfaces available on which they played. The only rules apparent during the observational visits were those that related to safety. With the encouragement of the staff on duty they moved without difficulty between the grassy area that housed the climbing frame to the tarmac space on which the tricycles were parked and the roofed area that was covered in wood shavings in which the large building blocks were stacked.

### **6.2.4 Curricular and communication skills**

The three environments within one educational setting that were experienced daily by the SLI children combined to give support for certain skills yet frequently undermined vital curricular and communicative competencies.

#### **The therapeutic environment: curricular and communication skills**

The therapeutic environment was experienced by the SLI children for between ten to twenty minutes each day. Nicky was only responsible for Speech and Language Therapy and not the wider remit of the development of curricular and communication skills within the nursery setting. Although curricular skills including concentration and memory were demanded of them during their therapy sessions, these skills were not rehearsed or enhanced within the nursery environment, where they were given a significant degree of independence to pursue their own activities if no disruption to their peer group was assured.



The communication skills that were highlighted during individual therapy sessions also did not transfer to the wider environment of the nursery because the context in which these were practised was not made relevant to the children in meaningful situations. They experienced a 'friendship group' occasionally (once or twice a term) when they invited children from the main nursery to join them in Nicky's room, but the time the children spent together as a group (ten minutes on average) rehearsing communication skills was not 'followed through' or supported in a practical way by the Nursery staff. Hence valuable opportunities were missed to extend their interactive skills. The individual nature of therapeutic sessions and the absence of positive dialogue between Nicky and the Nursery staff had a detrimental effect on the ability of all the SLI children to build on the communication skills that their scores on the IAP revealed they possessed.

#### The indoor nursery environment: curricular skills

Pre-intervention observational evidence suggested that the SLI children chose mostly to engage in activities that afforded them the greater level of success, that could be completed in their own time without adult direction and that were stress-free. They tended to avoid engagement with tasks that required sitting still at a table or activities that could be overlooked by their peers, preferring to play independently either lying down or standing. During the music session they were uncooperative and uncomfortable owing to their lack of ability to sit still or remember the words of the songs.

#### The outdoor nursery environment: curricular skills

The outdoor environment was observed to provide a significant level of support for curricular skills that was neither acknowledged or appreciated by the Nursery staff. This environment, in contrast to the indoor nursery environment, did not present a similar degree of challenge or stress for the SLI children. They all engaged with the smaller equipment available without obvious difficulty. The curricular skills of concentration, perseverance, sorting, accuracy and precision that they employed in the outdoor environment were not utilised to a significant degree by the activities they experienced within the nursery and therapeutic environments. Outdoors, Nathan and Jack (L1) constructed a tower with the large wooden blocks positioned precisely on top of each other, while Luke and Ellie concentrated hard as they made a

'house' with the tricycles. Francis and Christopher (L2) filled the hollow building blocks with wood shavings and used these to make an outside exercise area for the rabbits.

The SLI groups therefore took advantage of the resources available outdoors and demonstrated that in a different environment they were capable of initiating and completing activities, concentrating, and implementing strategies that had not been noted to do indoors. The only outdoor activity that caused significant difficulty for the SLI children was the organised session with the parachute. Holding the parachute with the requisite grip was problematic and their poor timing of certain tasks (listening for their names and running underneath to change places) annoyed the staff and demonstrated the children's limited ability to access highly structured activities that required a high level of verbal understanding for success.

#### The indoor nursery environment : communication skills

The communication skills of the SLI children were highlighted in diverse ways by the three environments they experienced daily. The therapeutic setting concentrated on specific communication skills that were focused on in isolation from any meaningful context. Although Nicky's professional records demonstrated the children's positive development in this area, there was no ongoing support within the nursery setting to rehearse these skills further. The 'friendship groups' were not a regular occurrence and did not always involve the same group of children, thereby losing any continuity. The SLI children themselves rarely worked together as a group unless they joined school outings, during which time Nicky was appointed to be responsible for them.

The open-plan configuration of the nursery environment did not support their communication skills in two specific ways. First, the level of noise the SLI children experienced during their time in the nursery had a negative effect on their ability to discriminate sounds and listen carefully to instructions. Second, their behavioural difficulties encouraged the staff to allow them to move at will from one area to another without intervention.



During the first pre-intervention observational visit taped music was played loudly and two children were using the computer. These sounds were added to the general level of noise produced by the children themselves. Nathan (L1) was observed to move from the sandpit to the home area and back again with the dollies throughout the morning. When a member of staff suggested from the other side of the room that he should colour in a picture, he heard the voice of the staff member but did not understand the instruction owing to the background noise. Luke was observed to put his hands over his ears if a member of staff spoke to him directly, as if he was not able to accommodate any more sounds. During one wet playtime the children played indoors. The SLI children in group L1 moved to the sides of the room to sit alone and escape the noise while Luke lay on the floor and covered his ears with his hands.

The occasions in which all the children were together as a group — registration, music lessons, play-time and playing with the parachute — only served to highlight the difficulties they experienced interacting with their peer group. Undoing the straws on their milk cartons at break -time was challenging and all the SLI children needed assistance. Their inability to perform this simple task independently or reply correctly to their names during registration emphasised their areas of difficulty to the other children. The development of communication skills of the SLI was therefore not supported adequately by their indoor nursery environment.

#### The outdoor nursery environment : communication skills

The outdoor environment, however, offered the SLI children positive opportunities to engage with the staff and their peer group. The children were demonstrably less anxious and physically interacted with each other as they engaged with the resources. The materials available during outdoor playtime were manageable and the tasks they set themselves were accessible and did not depend on adult direction for success. The SLI children also interacted in more positive manner with adults in the outdoor environment. The children, without prompting, invited the staff to join in their activities and asked for help when necessary, neither of which had they been noted to do in the nursery. Mrs P (a classroom assistant) had the following exchange with Francis and Christopher (L2) during the second observational visit;

Mrs P : “I think the rabbits are going to need a new home soon they’re getting too big.”



Francis : “Me and Christopher making a house.”

Mrs P : “For the rabbits?”

Christopher : “A big house.”

Mrs P : “That looks interesting.”

Francis : “ Help us?”

Mrs P : “ Yes but you’ll have to tell me what to do.”

The two children and Mrs P. spent the following fifteen minutes constructing an area for the rabbits to play in. They then took the animals out of their hutch and watched them hop around before it was time to return to the nursery. This interaction was significant because Mrs P. waited until the children asked for assistance before engaging in their activity. Within the nursery she was observed frequently to coerce the SLI children to interact with her on activities they tended to avoid. The sensitivity and respect towards the children she demonstrated as she joined in their play outdoors was in direct contrast to her manner towards them indoors.

Evidence gained from the two observational visits revealed that experience of a supportive environment, manageable tasks, familiar materials and a lower level of adult direction resulted in an increased level of positive interaction between the staff and the SLI children. They engaged with the resources available outdoors both as individuals and within small groups and moved with ease between different areas. The relationship between the children and staff was noted to be one of cooperation and equality in this environment. There was a degree of respect for each other’s space and adequate time and support to allow activities to evolve at a manageable pace. An ‘end result’ was neither expected nor sought and an element of humour was evident in both the staff and the children.

### **6.2.5 The Initial Assessment Procedure ( IAP)**

Evidence gained from the IAP completed by all the SLI children in Nicky’s therapy room supported pre-intervention findings in two specific areas.

First, during the process the children worked *alongside* Nicky as she completed the tasks in tandem. This relationship mirrored closely the interaction observed between the staff and children in the outdoor nursery environment. The resources involved in the IAP were also familiar and manageable and adequate time was afforded the children to complete the tasks. Second, the procedure confirmed their specific areas of difficulty as noted during the observational visits. The fine-motor coordination of the SLI children was limited and 'handedness', concentration and proprioception were also problematic. However, their response to the communication tasks included in the procedure revealed that when they experienced a supportive, stress-free environment and completed manageable tasks with familiar materials, (as they were noted to do in the outdoor nursery environment), their communication skills were used more productively than in the therapeutic or indoor nursery setting.

#### **6.2.6 The 'Immediate Environment' of the movement intervention program**

Both groups of SLI children experienced their movement sessions in Nicky's therapy room. The table and chairs were removed during this time and therapeutic resources covered to minimise distractions. The 'immediate environment' as related to the movement program involved the physical fabric of the room, the physical properties of the children themselves and those of participating adults.

The manner in which the physical environment was utilised as a learning aid throughout the sessions was a unique experience for the SLI children. They had only ever sat at the table in the therapy room to perform language exercises and had worked infrequently as a group within this environment. The atmosphere during therapeutic sessions was quiet, organised and focused. Nicky was in control of the situation and no opportunities were afforded the children to be noisy, make suggestions or disagree.

Routines and rituals relating to resources did not play a significant role in Nicky's interactions with the SLI children. They were allowed no autonomy in the choice of therapeutic materials and given minimal responsibility to ensure resources remained tidy and ordered. This was in direct contrast to the level of responsibility expected of the nursery children who each were given a specific duty to perform each day. These ranged from tidying the book corner to handing out the milk cartons and being first in line to go

outdoors or home. The Head Teacher admitted that the SLI children were not given duties because 'they usually mess them up and then it takes ages to sort them out.'

The participant-researcher therefore developed the movement program with an element of routine and responsibility included as an important component. Every session began and ended in the same way. They were called individually by Nicky from the library area after registration. They entered the room with her and the participant-researcher and immediately formed a circle shape while standing. It had been noted during pre-intervention observations that one of the skills that afforded them significant difficulty was sitting still and listening. It was less challenging or threatening for them to begin standing, and therefore all the sessions started in this manner. Each session however, concluded with the children sitting in a circle on the floor and discussing their work. This ensured a quiet exit from Nicky's room and gave the children the responsibility to return unassisted to the nursery.

The SLI children had not used previously the 'immediate environment' as a learning aid. However, when they were given socks to explore the theme of 'strength' in the second 'apparatus' phase of the initial program they experienced no difficulty using their socks to rub, polish, clean and wipe the different surfaces of the room. They also had no problems accommodating the 'free-play' component of the sessions during which they explored their own ideas with the apparatus. As Nicky herself was an intrinsic component of the 'immediate environment' they lifted up her arms and legs, pushed and squeezed her hands and tried to pull her up from the floor with their hands. They then extended their understanding of the concept of strength by using their own hands and feet to find different positions in which to balance.

Throughout the fifth session of the program in which 'sound' was the chosen theme the children consolidated their experiences of use of the 'immediate environment'. Nicky made various sounds with objects situated around the room (pulling sellotape from the holder, drawing the blinds and opening and shutting the drawers of her desk) as they determined which part of the environment was involved. They made their own sounds with different body parts on all available surfaces before constructing instruments with varying small objects that they placed in water-bottles.



During the tenth session in which 'colour' was the chosen theme the properties of the 'immediate environment' were again used as an integral component of the learning process. The children made towers of duplo as 'high as the first bit of the grey radiator, to the beginning of the flowery green curtains, up to the silver door handle, under Nicky's brown chair'. They also used the different colours of their clothes to explore individual likes and dislikes and compared the different colours of the clothes worn by Nicky and the participant -researcher.

Nicky wrote the following comments in her diary after the fifth session of the initial program;

"I was initially very worried about you changing the room and how they would react. In a therapeutic situation we stress calm and focus, and having them all jumping around and muddling up the room wasn't easy for me to accommodate. It's been good for them to really observe each other and to use the space, and me - in a different way. It has been interesting to watch them doing things that they find really easy and fun, like jumping and running, which they do outside in the playground. It gives them an extra chance to do well and takes the pressure off, which I can't and don't do very often."

Nicky therefore acknowledged that using the 'immediate environment' was an important learning aid for the SLI children within the movement sessions. She also agreed (having observed two outdoor playtimes) that the outdoor environment was the one in which they functioned most positively and offered them the greatest opportunity to succeed.

During the delivery of the initial movement program the physical and communication skills the children were observed to use in the outdoor environment were used as the basis for phase one 'movement' and phase two 'apparatus' of the ten sessions. Thus the sessions were integrated the therapeutic environment in which the program was experienced with the outdoor environment through use of the 'immediate environment'.

### **6.2.7 Post -intervention evidence**

The movement program had a positive effect on the SLI children in the three separate environments they experienced within the nursery setting. The Nursery staff observed that the participating children had developed a level of confidence both to initiate social interactions and to engage with materials that they

had avoided previously in the nursery. The evidence for the enhancement of curricular skills was not as comprehensive as that for communication skills for two reasons. First, Nicky did not spend an adequate amount of time observing the SLI children in either the indoor or outdoor nursery environments and noting specific changes in behaviour. Second, communication skills were considered to be a more significant problem and were therefore treated more seriously by the Nursery staff. However, they reported after the fifth session that Nathan (L1) had finally settled down to complete a puzzle, and Luke (L1) had engaged with the writing materials without support for the first time. During the ninth week of the program Cameron and Billy (L2) finished their Christmas decorations, a task that the staff had predicted they would refuse to do. The Head Teacher made the following comments concerning group L1 in conversation with the participant -researcher after the final session of the initial program;

“That lot seem to be much calmer in the nursery and they're easier to deal with now because they're not disappearing every time someone wants them to do something. They're definitely more confident to do things now and at least they'll try and join in.”

For Nicky the change of environment within the therapy room had been difficult to accommodate, yet she noted at the end of the tenth session that;

“They're much less fearful of coming in now, and they're always moving around the room, touching and feeling things while they're talking to me. I think that they feel a need to do this to 'get in touch again' before we start the main therapeutic stuff. It was good too that the photos of me were on the wall every week. They really feel that it's my space that we've all shared, and it's given them something to engage with immediately they come in.”

“I think using the room in a different way has given them a feeling that they belong somewhere, that this really is a place they have a good time in with their friends. It's quite difficult now, though, to keep their hands off things, because they're just so curious and they immediately notice anything in the room that I've changed round.”

In the outdoor environment the Nursery staff reported no significant change in the behaviour of the participating children except their growing confidence to join in organised activities and generally interact with the mainstream nursery children during outdoor playtime. They reported that Luke (L1), having finally reached the top of the high slide, now achieved this each playtime and interacted easily with the other nursery children as they waited for their turn. James (L2), who had previously spent outdoor playtimes sitting on an adult's lap, used a bicycle to take Christopher for a ride on the back. The outdoor environment of the nursery thus provided an invaluable source of evidence relating to the enhancement of



the curricular and communicative skills of the SLI children through their participation in the movement program.

The participant-researcher completed the delivery of the initial ten sessions of the movement program and Nicky was prepared for the next stage of the study.

#### **6.2.8 Nicky's independent delivery of the movement intervention program**

The environment in which Nicky delivered the movement program remained constant except in one important aspect. During the third 'recording' phase when the children made their books, the table and chairs were reinstated. At this time Nicky became increasingly concerned about the transition to mainstream schooling of the children in participating group L1. Nathan and Jack had been accepted into a specialist Language Unit, but the three remaining children had been offered places in local reception classes and were expecting varying levels of language support.

In order to facilitate their future move, Nicky used the third 'recording' phase of the sessions to highlight specific curricular skills and practice responsible behaviour towards the 'immediate environment': sitting and listening, taking turns to speak, processing instructions, tidying up, completing tasks and sharing resources. She introduced books from the library to extend understanding of her chosen themes and familiarise the children with the 'book behaviour' that they failed to demonstrate during their time in the main nursery.

The Nursery staff reported that rehearsing these specific skills in her sessions had made a positive difference to the ability of group L1 to access curricular activities in the nursery. They had begun to use the book corner more frequently through their own volition and had become more interested in activities they had avoided previously such as writing and drawing. Bringing the nursery environment into the therapeutic environment engendered the more positive attitude to curricular activities that Nicky had sought to establish. She also decided to leave her door open when the children arrived in the morning so they were able to greet her when they arrived and enter the room if they wished. This small but highly



significant change also enabled the children in group L1 to bring their friends into the room and show them the polaroid photographs of Nicky on the wall and the covered boxes in which their books were stored.

The use of the 'immediate environment' was a fundamental principle underlying the delivery of the movement program. The three environments experienced by the SLI children in the nursery were not integrated in a productive manner at the start of the movement program. In addition, the skills required for the children to operate effectively in each environment were not acknowledged by the staff to be transferable in any meaningful way. By utilising the Medau principle of the 'immediate environment' and basing the movement program on physical skills the children were observed to use without difficulty, the integration of the three environments the children experienced was promoted.

Nicky, in conversation with the participant-researcher at the close of her independent delivery of the movement program, noted the following concerning the relationship between group L1 and the therapeutic environment;

"I think they feel that this is their special place now and not somewhere they have to go to for a certain period every day to do things they don't like. I feel they are sort of proud of it in some way, because they keep bringing their friends from the nursery in to see me. There's much more communication now between the nursery and me because the door is open and the staff can pop in more easily, it's good because the staff can come and see me about anything that's bothering them without making such a big thing of it."

The use of the 'immediate environment' had a positive effect on the relationship between Nicky and the SLI children and between Nicky and the Nursery staff. Their observational evidence of the effect of the movement program on the curricular and communication skills of the SLI children was significant. They became more aware of the wider difficulties experienced by this group in the nursery and more sensitive to the communicative strategies they were able to utilise if they experienced a supportive learning environment. The experience of the initial movement program delivered by the participant-researcher provided Nicky with the knowledge to use the 'immediate environment' in an effective and meaningful way to further extend the language skills of children in group L1 during her independent delivery of the movement program.

### **6.2.9 Summary**

The following paragraph summarises the key findings from the 'learning environment' theme related to the SLI groups. Observational evidence of the children acquired in the outdoor nursery environment affected the development and delivery of the Medau movement program. The supportive and equal relationship between both parties as they engaged in manageable activities provided experiences in which the curricular and communication skills of the SLI children were utilised in a positive and satisfactory way. The use of the 'immediate environment' throughout the program was a critical factor in ensuring the further development of the children's language skills. The relationship between the children and the therapeutic and indoor nursery environments was changed as Nicky acknowledged the importance of using the 'immediate environment' as a teaching aid and the language skills of the children were enhanced to a level at which they could begin to access nursery activities.

## **TEACHER DIRECTION**

### **6.3.0 Pre-intervention evidence**

The SLI children experienced varying levels of direction in the three environments at the nursery. Pre-intervention observational data suggested that these variations were confusing for the language groups and detrimental to the development of their curricular and communication skills.

Data gained from the two observational visits suggested that the level of direction the SLI groups experienced in their individual therapy sessions was high in contrast to that they experienced in the outdoor and indoor nursery environments. The standard language therapeutic guidelines implemented by Nicky were structured, graduated and strictly adhered to. The children were required to attain specific language acquisition targets within a certain period of time and detailed records were kept of individual progress. Each child possessed a folder in which completed worksheets and any written material gained from the nursery were stored.

The children entered the room quietly for their individual therapy sessions, having been sent by the Head Teacher from the nursery. They then sat with Nicky around the table to complete a range of oral-motor and paper-based tasks. For Nicky, a significant difficulty to accommodate was if, and when, the children did not respond in the expected way to the activities she had chosen for their sessions. This was evident in the behaviour displayed by Nathan and Luke (L1). Nathan entered the room and continually flicked the light switch off and on, picked up the telephone and pressed the buttons of the stereo, all strategies designed to avoid sitting at the table.

Nicky, in conversation with the participant-researcher acknowledged her lack of skills to manage this behaviour and revealed that she frequently curtailed sessions with Nathan if he was unable to accommodate the level of direction language therapy demanded. Luke reacted to the high level of direction present during therapy sessions quite differently. In contrast to Nathan, who used the materials in the room to avoid any engagement with the language exercises, Luke was content to sit at the table but was completely passive and did not interact with Nicky either physically or verbally. She attempted to engage him with the puppets but he did not respond, preferring to stare blankly out of the window.

These two children demonstrated the inherent difficulty of adopting a standard therapeutic approach to a wide range of difficulties, abilities, needs and temperaments. The principles of therapeutic intervention were challenging for Nicky to implement on a daily basis owing to varying degrees of motivation, familial support and diagnoses from alternative professional bodies concerning the children.

### **6.3.1 The Initial Assessment Procedure (IAP)**

However, evidence gained from the IAP completed by all children in both participating and corresponding groups revealed that when the level of direction the SLI children experienced was lowered, and if Nicky performed the same tasks *alongside* them, they completed given activities without presenting the unmanageable behaviour witnessed during therapy sessions.



The majority of materials included in the assessment procedure were familiar to the children; stickers, sweets, bubbles, felt tips. During the process, Nicky encouraged them to assist her; Nathan (L1) helped her place a series of hairgrips on her card and when she had difficulty with the small green stickers; Luke (L1) held the sheet while she placed them on the black dots. Nicky observed at the pre-intervention stage that their anxiety levels were lowered while she was working alongside them. In addition, Jack and Luke (L1) who were the least confident in verbal interaction during therapy sessions, were able to interact with her during the IAP without fear of failure.

### **6.3.2 The movement intervention program**

Nicky, after the first session of the initial movement program, made the following observations relating to the children's reaction to the lower level of adult direction they had experienced;

“I'm really surprised that they're comfortable being in a group together. They're not used to it at all. And taking the furniture away I thought would make them worried. Doing something all together and including us [*the participant-researcher, classroom assistant and Nicky*] and without being picked out or having the spotlight put on them gives them more freedom to just communicate even if, as with Nathan, it's still very indistinct — at least they had a go.”

Nicky was aware that Jack (L1) infrequently interacted verbally either in the nursery or during therapeutic interventions. However, he had the following conversation with Nathan as they participated in the first 'movement' phase of the initial movement session.

Jack said to Nathan : “Me jumping.”

Nathan replied : “Me do it too.”

Jack said : “Good.”

Nathan replied : “Yes.”

The second 'apparatus' phase also demonstrated to Nicky that when she was involved with the children on a common task they were more confident to engage verbally with her. During this phase socks were used to explore the theme of 'strength'. The following conversation was recorded between her and the group;

Nicky (with a sock on her hand) said to the group: "This one's sleepy, I think."

Ellie replied: "Mine's happy."

Arron: "This one's cross."

Nicky then asked Nathan: "What's yours doing, then?"

Nathan told her : "Naughty."

The subject of direction continued to be a significant issue throughout the initial delivery of the program as Nicky acknowledged the difference in the children's behaviour during the movement sessions and that which they presented in their individual therapy sessions. She revealed to the participant- researcher at the end of the fifth session;

"I've been very concerned recently about the difference in flow between your sessions and mine and the level of tension the children present to me sometimes. I just can't work with them when they're tense."

She was also beginning to question the level of direction the children experienced during their therapy sessions and made the following observations at the close of the fifth movement session;

"I have slowly come to realise that the best way to deal with children who are resistant to direction- which they usually are in therapy sessions - is to maybe set up some non-directed play, basically what happens in the movement sessions, and then add the language. The children often don't cooperate with me, and I wonder sometimes if maybe they're being *over-directed* at home. I think the level of control exerted by language therapists often limits the opportunities for language development, because we are so frightened of losing control."

The Medau approach to learning was based on the children's ability to utilise the skills they already possessed to refine and enhance competencies in related areas of language development. In contrast to the therapeutic environment in which they continually experienced activities that emphasised their absence of language skills, the movement sessions highlighted competencies that were already established and that focused on the *integration* of curricular and communicative competencies.

Nicky acknowledged the value of an approach to learning that demanded a lower level of direction and recorded the following observations after the seventh session;



**“I am enjoying the sessions, particularly being able to engage with the children without imposing a structure or specific language objectives which drive the session. It’s really good for me to observe and participate with somebody else leading the sessions. I appreciate the sense of flow and the fact that one activity goes into the next, evolving almost spontaneously.”**

**“I’ve actually started to incorporate quite a lot of movement into the speech work in that I’m now thinking more about the rhythm of syllables and sounds. I’m also trying hard to get a balance in the individual therapy sessions between sitting and listening and moving. I’m still very concerned that the children never question anything I do — they are just really passive in my sessions, which is completely different from the way they present themselves during the movement sessions.”**

**Nicky recognised that resolving the issue of direction was of fundamental importance to her independent delivery of the movement program. Throughout the course of the program she observed how the children had responded to the lower level of direction they experienced during the movement sessions and the means by which this supported the ‘free- playtime’ component with the apparatus before the start of the third ‘recording’ phase. Video evidence revealed that the SLI groups experienced no difficulties accessing this component of the sessions. During their first session group L1 rolled their socks into balls and threw them in the air. Children in group L2 flicked their socks at each other and over the different surfaces in the room. During their eighth session group L1 shuffled around on their paper plates and also pretended they were tractor steering wheels.**

**Nicky wrote in her diary after session five of the initial program and having viewed the video evidence of her concern that the ‘overlearning’ of vocabulary that was a seminal feature of therapeutic interventions did not form a significant element of the movement sessions. She suggested that only five themes should be included in any future delivery of the program and that specific vocabulary should be highlighted each week. The participant-researcher argued that the time spent in each session focusing on specific themes provided unique opportunities to extend the children’s vocabulary in a meaningful context. In each of the three phases relevant vocabulary was rehearsed and the books they made ensured a continuing reminder of their experiences. Lucy also commented after viewing the video evidence that although giving the children opportunities to interact in a less structured way was a positive experience, SLT’s generally felt more secure in their practice if they worked within strictly defined parameters.**



Children who were directed to a lesser degree experienced a positive effect on their engagement with two-dimensional curricular materials during the third 'recording' phase of each session. Pre-intervention data suggested that both participating and corresponding groups experienced significant difficulty accessing activities in the indoor nursery environment that were directed by adults and that required a high degree of fine-motor coordination, strength and skill to succeed.

The third 'recording' phase included an element of direction by the participant -researcher in terms of structure because each page had a designated purpose but the children made their own decisions regarding the colours, stickers and pictorial representations they chose. Their response to the materials was more positive than pre-intervention evidence had suggested. The decreased level of direction the children experienced as they engaged with the resources gave them the opportunity to be responsible for their work without fear of ridicule or failure.

The varying levels of direction experienced by the SLI children in the indoor nursery environment, during therapeutic interventions and throughout the movement program was of concern to Nicky. This continued to an important issue for her to resolve. She achieved this during her independent delivery of the movement program with group L1.

### **6.3.3 Summary**

The following paragraph summarises the key findings from the 'teacher direction' theme related to the SLI groups. The contrasting level of direction the children experienced throughout the movement program had a positive effect on the development of their curricular and communication skills. No specific language acquisition targets were included and the children were not required to complete worksheets related to oral exercises. The children experienced less difficulty accommodating the lower level of direction than Nicky for whom this was a significant issue. Resolving her concerns was an important element of the mentoring process and she achieved this through her independent delivery of the movement program.

## **TRANSFER OF SKILLS**

### **6.4.0 Introduction**

The transfer of skills between the environments experienced by the children was made explicit throughout the movement program. Movement skills that the children already possessed provided the basic structure for the first 'movement' phase of the sessions. During this phase the transfer of skills between the outdoor environment of the nursery and the children's home environments to the environment of the movement program was highlighted. Pre-intervention observations revealed the children's ability to perform movement skills that included running, jumping, stretching, turning, clapping and lifting. In conversation with Nicky the parents revealed that their children regularly practiced these activities in the park or at home without difficulty.

During the second 'apparatus' phase, in which small hand apparatus was used, the emphasis was on promoting the transfer of skills from the movement sessions to the indoor nursery environment to assist the children's engagement with curricular activities. In the third 'recording' phase, during which they completed their books and took them home, the focus was on the transfer of experiences from the movement sessions to their home settings and the closer involvement by the parents in their children's language development.

### **6.4.1 Pre-intervention evidence: curricular skills**

Pre-intervention data suggested there was a minimal degree of skill transference between the environments the children experienced. The language therapy sessions focused on oral language skills and did not accommodate the wider curricular problems experienced by the children. Certain curricular behavioural skills, listening, concentrating and sitting still were included but the development of fine-motor skills, visual skills and 'handedness' did not feature to a significant degree.

These specific areas of difficulty were noted by the Nursery staff during conversations with the participant -researcher. Despite their observations no effective coordinated program was implemented to enhance these fundamental skills. The work -sheets that the children completed in their individual sessions with Nicky were rarely shown to the Nursery staff who, in turn, did not send finished nursery activities back to the therapy room for Nicky to assess. The Nursery staff rarely witnessed therapy sessions and Nicky had little spare time available to observe the children's behaviour in the nursery or outdoors. In addition, the parents of the SLI children communicated mainly with Nicky and had minimal contact with each other or the Nursery staff.

#### **6.4.2 Pre-intervention evidence: communication skills**

Fundamental communication skills were also not supported by the indoor nursery environment or the therapeutic setting. Communication skills rehearsed in isolation during therapy sessions were not immediately placed in context in order to be practiced or refined in the nursery. The interactive skills the children employed in the outdoor environment were not observed by Nicky or considered worthy of rehearsal by the staff inside the nursery. The scores the children achieved on the IAP also highlighted the absence of transference of skills between the settings the children experienced.

#### **6.4.3 The movement intervention program**

Throughout the delivery of the initial ten sessions the transfer of skills between environments was of paramount importance in order to maximise the impact of the movement program. During the first 'movement' phase of each session the essential pre-verbal components of effective communication were highlighted: sequencing, rhythmic awareness, timing, touch sensitivity, spatial awareness and memory.

The children moved together in a circle formation in different ways: clockwise and anti-clockwise, into the middle and out again, holding hands, individually, fast or slow, to music or without. (Appendix 8.) They also performed a specific sequence of movements to which one action was added each week. Nicky made the following comments relating to the transfer of skills after the fifth movement session;



“Jack wants to ‘do jumping’ before each therapy session and Nathan in his friend's group wants to hold hands, walk round, change direction and stop. Luke has completely retained the first ten minutes and is insisting that we do it together every time.”

“Generally they're all remembering the experiences of the sessions and are using them to help communicate with their peer group in a very positive way. I also think they're starting to build other friendships in the nursery and more notice is being taken of them by everyone because of this. The staff have told me that outside Nathan and Luke hold hands and move around together in a circle.”

During the fourth session paper-bags were used to explore the theme of ‘shape’. Mrs. P (a nursery assistant who had participated in the session) reported the children’s later transfer of skills from the movement program to the indoor nursery environment;

“This week when they were finally sitting and working with playdo with the other children and making triangle shapes, Arron said ‘Mine’s a pizza’, Luke said ‘A sandwich’. Nathan put his under his chin and said ‘It’s a bib.’ What they said was exactly the same as when we folded the paper-bags into the same shapes last week, and it made the other children make up their own ideas as to what their playdo shapes could be.”

The eighth session focused on the theme of ‘number’. Group L1 had been recently on a school trip to the local farm. During the ‘free playtime’ component of the session they first used the plates to represent the stepping stones round the duck pond, made tractor steering wheels and then placed them on the floor and pretended to be the animals eating their food. These actions demonstrated a clear transfer of experiences from outside the classroom to the movement session. The flexibility of the Medau approach to learning gave the children during this time the opportunity to use the communication skills and vocabulary they possessed to interact positively as a group and remember shared experiences. In contrast to the worksheets relating to the farm trip that were completed by the nursery children at the same time, the SLI children used their experiences in an immediate, relevant and meaningful way.

Nicky also revealed in her diary the parents’ appreciation of the books that the SLI children took home after each session. Her comments demonstrate how the children transferred their experiences of the movement sessions to the home environment;

“They [*the parents*] love being able to know what's going on and they're really trying to talk to the children about what they did in the sessions - it's sort of giving them

something concrete to talk *about* and making the transfer of skills to the home situation more explicit. It's not something I've been able to do before with their daily diaries but I can now see ways to integrate your approach with the on-going language support the children really need from their parents at home."

#### **6.4.4 Writing and Drawing**

A significant difficulty encountered daily by Nicky and the Nursery staff was to find a motivating factor that would encourage the SLI children to engage with two-dimensional and craft materials. Evidence acquired at the pre-intervention stage suggested that the SLI groups avoided writing or drawing activities either in the nursery or during therapy sessions. As the majority of SLI children (8 out of 10) had been offered places in mainstream reception classes, their lack of interest and low level of ability in this area was of concern to Nicky and the Nursery staff.

For the SLI groups the structure of their books remained constant throughout the program. Relevant materials from the nursery (pens, paper, rubbers, scissors, glue, Sellotape) were brought into the therapy room by the children and placed in designated boxes. This gave them a level of responsibility for the resources needed to complete their books and a sense of ritual as the materials needed to be stored tidily in a specific area each week in order to minimise the disruption to Nicky's room.

During the third 'recording' phase of the movement sessions the SLI children did not present the same level of reluctance to engage with the writing materials as they had done in the nursery or during Nicky's therapy sessions. Video evidence acquired during this phase supported pre-intervention evidence of the children's difficulties concerning 'handedness' and fine-motor coordination. They experienced problems taking the covers off the glue sticks and unscrewing the base to ensure the glue emerged and had difficulty undoing the caps of the felt-tips. Despite these challenges, all the children in the participating groups engaged positively with the resources. Nicky made the following observations in her diary at the end of the fifth session with group L1;

"The recording part of the sessions is really, really important for them. It makes them feel they can do what their friends spend a lot of time doing, like using pencils and paper. It's given them the chance to do it on their own terms without anyone telling them 'That's rubbish' all the time."

“Generally I think at this time their concentration span is increasing and they are now able to finish their books with much less adult help. They’re doing what they like with their books now which is really good and enjoying making their own decisions regarding the stickers and colours.”

A significant element of the ‘recording’ phase of the sessions was the use of polaroid photographs. Each child was photographed at the end of the second ‘apparatus’ phase performing an action with the materials that they had best remembered. The children glued their photographs onto the front page of their books each week. These provided an immediate, visible record of a memorable experience and became a valuable motivator for verbal interaction between the group during this time.

Their growing confidence and ability to engage with curricular materials may be demonstrated through consideration of the books completed by Francis and Christopher (L2) during sessions one, six and ten (Appendix 6). Over the ten weeks their involvement with the materials became greater, they managed the ever-smaller stickers with growing ease and covered a larger area of the paper with colour. They also began to include representations of themselves and their home settings in their drawings. They had not been observed previously to include this element during the IAP or during painting activities in the nursery.

#### **6.4.5 Nicky’s independent delivery of the movement intervention program**

Nicky was unable to continue the use of polaroid photographs during her delivery of the movement program because of funding difficulties. However, she introduced an important element of skill transference to the sessions in order to resolve her concerns as to how the SLI children would manage the transition from the Language Unit and nursery to their reception classes.

In her independent delivery of the movement program she introduced books from the library corner during the final ‘reflecting’ component. This component was developed by Nicky to make explicit to the children the relationship between future school experiences and those of the sessions. The participant-researcher had included this element in the initial movement program but had not clarified its importance to the participating groups of children. During Nicky’s first session the children explored the theme of ‘prepositions’. She and the Nursery staff had observed that the SLI children became very confused if



directions were not absolutely clear and understandable, particularly phrases such as ‘over here’ and ‘put it somewhere over there.’ They needed specific vocabulary attached to clear visual cues to carry out instructions. This requirement was highlighted by the scores the children achieved on the IAP.

Nicky chose the book, ‘The Teddy Who Got Lost’, to extend the children’s understanding of prepositions. In this book the teddy was portrayed in a range of situations that the children recognised would cause them to be in trouble if they repeated his actions. Arron immediately noted: “It hasn’t got any words” and Nathan realised that the page Nicky asked him about matched the front cover of the book. All the children identified correctly the different positions of the teddy and used the requisite vocabulary to do so.

Nicky asked Arron: “Where’s the teddy?”

Arron replied: “He’s hiding on the top of the cupboard – that’s really bad you know.”

Nicky said: “I don’t know I’ve been on top of a cupboard before hiding from my brother.”

Nicky then asked Luke: “Where’s the teddy?”

Luke pointed to the teddy hiding under the bed.

Nicky then asked him: “Where’s that then Luke?”

Luke replied: “Bed.”

Nicky responded: “That’s right Luke, he’s *under* the bed. Like your feet, they’re *under* the table.”

Nicky’s interaction with the children demonstrated the significant variation in language ability between the children. However, the seamless introduction of a relevant book to the session allowed them to interact with written material in a positive way and consolidate their knowledge of the theme without the inclusion of unmanageable reading or oral performance tasks. In her choice of book, Nicky immediately related their physical experience of the session to a two-dimensional representation of the concept. This was a critical moment for her as she described in conversation with the participant-researcher;

“Getting a book out of the library corner was a real challenge for all of us today. I know they never look at books unless they’re forced to and they usually hate it if I bring books out during their individual time with me, but I was really surprised that they responded so well. I don’t think they would have been ready last term but being around ‘schooly’ things during the program with you has obviously rubbed off. I was

especially pleased with Luke who usually just stares at me if we do anything paper-based... did you notice how he thought the teddy sitting under the bed was so funny.”

During her ninth session Nicky showed the group a book that contained pictures of objects and animals of the same colour. Each child was asked in turn to choose their favourite colour and object. They experienced no difficulty in replying to her questions and reacted with enthusiasm to the task. Thus the children were introduced to the concept that knowledge gained from printed material was relevant and meaningful and this became a significant factor that prompted their later engagement with the nursery library.

The second transferable experience that Nicky introduced during her movement sessions was the replication of the *manner* of instructions the children would expect when they entered their reception classes. These instructions were related directly to the chosen theme. During her first session the children assisted in arranging the furniture for activities and tidied up the resources at the end. They were each given tasks to complete that were performed individually or by the whole group and relevant vocabulary that related to the ‘preposition’ theme was highlighted. The following instructions were recorded;

Nicky said to Luke and Nathan: “This table needs to be put *in the middle*.”

Nicky asked Jack: “Please find the pencils for me *in the drawer*.”

Nicky advised Arron: “The chairs must go tidily *by the wall*.”

Nicky said to the group: “I would like you all to sit *on the chairs* now, please.”

During this time she emphasised the prepositions and spoke in a less moderate tone of voice than she had used previously during individual therapy sessions. The children accommodated the change in her manner of issuing instructions without difficulty. This behaviour was not expected by Nicky who had been concerned that they would react in a negative manner or become confused and uncooperative. She made the following comments in conversation with the participant- researcher having viewed the video evidence of this session.

“Initially I was really uncomfortable pitching my voice like that. Usually I’m very quiet and supportive and I thought they might react badly if I talked to them like the others do in the nursery. I was surprised that they didn’t really notice any change which is a good thing because that’s what they’ll be faced with very soon. I also realised I got in



lots of vocabulary practice which went well I thought. It doesn't come naturally to me to interact with them so forcefully but it's important that they are comfortable with it as its going to be a vital part of their preparation for the next stage."

#### **6.4.6 Post-intervention evidence**

All the parents of the SLI children completed the post-intervention questionnaire (Appendix 7A) and engaged in informal conversations with the participant- researcher and Nicky. They made the following observations concerning the children's transference of movement experiences to their home settings;

##### **Group L1**

Ellie: She's doing a lot of balancing and concentrating on different positions at home. She has really enjoyed bringing her books home and showing her dad and her sister. Her concentration is much better and she's finally found some friends in Arron and Nathan. Her social skills are better now and she doesn't get so close to people. She's much more sensitive, I think, and she's going to try gym lessons soon. She makes friends more easily now because she's more confident.

Luke: Luke really enjoyed the program. He joined in and seemed to look forward to telling me about what he'd done. I think it's given him a lot of confidence, and he's enjoyed being accepted by the group. He keeps wanting to put my tights on my head! The program really helped him prepare for school. He still doesn't like going to his language classes but he can now do most of the things he's asked to in school.

Nathan: He really enjoyed running and jumping. He enjoyed the program and can still remember a lot of what he did, like going round in a circle and stopping. He still has some problems relating to other children, but the program has definitely started to help him.

Arron: He told me a lot of what he did and he especially remembered the tights. He keeps rooting through my drawers and making them long. He's doing a lot more of relating concepts to himself. He told me today his hair was short, like his dad's. The program is an ideal framework for Arron because language concepts are the crux of his difficulty, and using physical or visual cues are a tremendous help. He's much more accommodating now with other people and he's obviously learned how to negotiate in situations.

Jack: I think he really enjoyed the physical aspect of it. He liked showing me his book and he seems much more organised and focused. He has started to try harder in his swimming lessons and he can finally pedal his bike. He thinks he's a very good jumper. He's definitely getting more confident, because he said hello to the builder who was at the door yesterday, and he wouldn't have done that before.

##### **Group L2**

Francis: The program gave him more confidence in himself because he could do the tasks and have fun at the same time. I think when he's moving the language flows better and there's not so much pressure on him. He always in a good mood after the sessions. It's been an extremely beneficial experience for him.

Billy: He told us a lot about what he did, and it gave him more ideas and experiences for play, like stretching tights and using paper plates like a frisbee.

Cameron: The program helped develop his social skills at turn-taking and working with other children. He showed us his books and liked seeing himself in the photos, also the stickers. When we looked at his



books he said he would like to do it all again. He's talking a bit more now and his speech is getting clearer.

Kate: She has definitely improved speechwise and is more confident about talking and joining in with other children. She is also much more responsive to adult direction now.

James: He's got such a long way to go but I think its done him a lot of good to join in with the group and have some fun. He wasn't faced with everything he can't do all the time which has helped his confidence a lot. I've got lots of good ideas from him what he likes so we'll try and do some of it at home.

Evidence from a range of sources revealed that the children transferred a variety of skills and experiences from the movement sessions to their home settings. They used elements of each phase of the sessions to rehearse interactions with their peer groups, to demonstrate to their parents the activities they had experienced with the apparatus and, by reviewing their books at home, reminded themselves and their families of their experiences of the sessions.

Group L1 was involved in the nursery concert towards the end of Nicky's program, and group L2 joined in the Nativity play at the close of their program. Both experiences demanded commitment, concentration and confidence from all the children. Although no child in group L1 was given a singing solo, they integrated successfully with the nursery children, stood on the stage without needing continual verbal encouragement and remembered their directions. The children in group L2 were also not given individual speaking parts but they were able to change into their costumes with minimal adult assistance and did not require prompting from Nicky throughout the play. In conversation with the participant -researcher after the concert Nicky made the following comments of group L1;

“I was really worried that they just wouldn't do it and then be really upset when it went wrong. I think they're much more confident now because of the program and they don't get pushed around so much by the other children. I know they didn't say anything and they couldn't remember the words, but they didn't make a fuss about getting changed and they all joined in. I think they've done really well, and compared to previous years I'm pleased they were 'with' the others more.”

#### **6.4.7 Summary**

The following paragraph summarises the key findings from the 'transfer of skills' theme related to the SLI groups. The movement skills the children were known to use successfully in the outdoor nursery environment and in their home settings were transferred to the movement sessions and provided the core

material for the first 'movement' phase. The children transferred the communication skills highlighted through use of these skills back to the therapeutic, indoor and outdoor nursery environments and home settings. Evidence for the transfer of curricular skills was not as significant in quantity but Nicky's focus on the behavioural expectations of future school settings was an important addition to the program. Her review of the video evidence acquired from the initial program supported her decision to include this element in her independent delivery of the sessions.

## **COMMUNICATION**

### **6.5.0 Pre-intervention evidence**

During the pre-intervention stage of the movement program the participant-researcher observed that the value placed by the Nursery staff on the children's good behaviour, self-discipline and ability to engage with curricular materials within the nursery setting was significantly greater than the premium they placed on physical competency or ability. They also interacted more positively with the SLI children in the outdoor environment than within the nursery itself. Communication between the staff and the SLI children was a significantly more stressful experience for both parties when it occurred indoors owing to the frequent failure of the children to comply with behavioural expectations. Nathan (L1) was told repeatedly to 'sit down and behave' by the Head Teacher during registration and then to 'go somewhere else immediately' when he was unable to do so. When she noticed Luke (L1) experiencing difficulty completing a puzzle she told him to, 'just get on with it.' Their inability to 'fit in' caused a significant degree of tension between the Nursery staff and the SLI children whose behavioural difficulties were not accommodated within the environment.

The manner of the Head Teacher towards the SLI children was assertive and brusque when they were unable to answer correctly to their names during registration. Both Luke (L1) and Arron (L1) reacted to her voice in a negative way; Luke put his sweatshirt over his head and Arron covered his face with his hands. The Nursery staff reported in conversation with the participant-researcher that they found the SLI children 'a pain to deal with' and that 'putting up with them' was 'the best they could do in the circumstances.'



The absence of positive interaction between the Nursery staff and SLI children and the lack of communication between Nicky and the staff had a detrimental effect on the development of communication skills by the SLI groups. The negative attitude of the staff towards the SLI children prevented the development of a scheme to ensure that they were given the time, support and opportunities to rehearse and refine essential skills. The communication difficulties the children experienced in the nursery were not discussed with Nicky as the Nursery staff did not consider this area to be 'part of her job'. In addition, the interactive skills Nicky highlighted during individual therapy sessions were not rehearsed in a meaningful way in the nursery environment.

#### **6.5.1 The movement intervention program**

Throughout the movement program the emphasis was on maximising the opportunities for the SLI children to build on the communicative strategies they had revealed they possessed during the observational visits and confirmed by their scores achieved on the IAP. In addition, the enhancement of verbal flow and engagement with curricular material were considered critical to the development of their communication skills. The three interlinked phases of the movement sessions were therefore designed to provide a wide range of interactive experiences for the children.

During the first 'movement' phase of their fourth session, group L1 experienced no significant problems holding hands in a circle and moving as a group to music. They all remembered the sequence of four movements that they had learned over the previous three weeks and completed the movement tasks without difficulty. In conversation with the participant-researcher at the end of the session Nicky noted the following;

"It was really interesting to hear them just talking during the first phase without having a specific structure to work with. I've never heard Jack say so much, and Luke now seems much less scared about getting something wrong. I think being on the floor with them and doing the same thing makes them relax, and so the language, however indistinct or naive, can start to happen."



Observations of the children during outdoor play revealed that they employed verbal strategies to communicate with their peers and the staff if, first, there was no pressure placed on them to perform and, second, they were given the time and opportunity to engage in manageable tasks. Data from the IAP supported these observations as the children completed activities alongside Nicky and interacted with her using the skills they had been observed to use in the outdoor environment.

The third 'recording' phase of the sessions was specifically included to encourage verbal communication. The use of polaroid photographs was an important element around which this was generated. The following conversation was recorded during the first session of the initial program as the children sat on the floor and waited for their images to appear;

Ellie said to Jack: "There's me!"

Jack replied: "It's me too."

Luke said to Ellie and Jack: "It's coming now. It's me."

Arron announced to the group: "I'm big!"

Nathan said to Arron: "I'm smiling."

Nicky then showed the children her own photograph and asked them: "Who do you think this is going to be?" She then used the images of herself and the children to remind them of their experiences of the first and second phases of the sessions and to reinforce specific vocabulary related to the theme of 'strength'. To emphasise this vocabulary, she asked the following questions when the children had completed their books.

Nicky asked Jack: "Do you think you look *strong* there, Jack?"

Jack replied: "A bit"

Nicky then asked Nathan: "Is your dinosaur *big and strong*?"

Nathan answered: "Don't know."

Nicky said to Arron: "Are you *squeezing* your sock there?"

Arron replied: "No I'm not. It's a hedgehog."

Nicky asked Luke: “What am I doing here? Do you think I’ve got big *muscles*?”

Luke replied: “On your hand.”

In conversation with the participant-researcher after the fifth session and having viewed the video evidence, Nicky made the following comments concerning the development of their communication skills;

“Although I noticed they have difficulties with the resources sometimes, I’m really pleased they’re all prepared to try, and it’s good to hear them trying to ask each other for a colour or something. I’ve never done this sort of thing with them as a whole group, but they’re fine being together and it gives them a chance just to chat — something that doesn’t happen in the nursery very much, and it never happens with me.”

“I know they often completely misunderstand our questions and each other...and some of the footage was very funny... but in this context getting the perfect reply out of them just isn’t relevant, what’s really important is that they get the chance to speak without getting stressy about it. I think the stress levels are much lower here and therefore the language can start to flow.”

Although verbal interaction was not entirely undirected because it was based on the themes and experiences of the movement sessions, the absence of specific language acquisition targets and more articulate children allowed the children to engage with each other in a positive and productive manner. As an important element of the mentoring process, Nicky came to acknowledge that under different circumstances the children were able to practice their communication skills while engaging with curricular materials.

Over the course of the initial ten- week program two components were added in order to maximise the time afforded for verbal interaction. First, a ‘free-play’ time with the apparatus and second, a final ‘reflecting’ phase. This was a clear example of the implementation of the action -research process. The ‘free-playtime’ was designed to extend the possibilities of the children’s play after the evaluation of the video evidence by Nicky, Lucy and the participant-researcher of the second ‘apparatus’ component. The ‘reflecting’ component was added to extend the children’s experience of contributing verbally to the group after consideration of their progress during the third ‘recording’ phase.

In the fifth session when 'sound' was the theme, the children were given a marble-run and a box of marbles of different sizes to use during the 'free-play' period. The following interaction was recorded between Nicky and the children as they used the apparatus;

Nicky said Arron: "Do you think that one's going to fit?"

Arron replied: "It won't go."

Jack held out his hand to Arron and said; "This one?"

Arron answered: "It's like mine. No, try this one."

Luke said to Nicky as Arron's marble stuck in the hole: "It's stuck."

Nathan asked Arron: "Me try?"

Nicky to the group: "OK let Nathan have a go and then let Luke and Ellie try theirs."

Within this brief exchange the children made decisions as to the colour and size of the marbles, waited for their turn and assisted each other. Through giving the children specific equipment to work with that demanded a significant degree of cooperation and communication in order to succeed, a level of verbal interaction between the children was recorded that had not been noted previously. During the 'free-play' component of the tenth session, the children engaged with the coloured duplo bricks and attempted to construct the highest towers possible. Video evidence revealed that the children engaged in a greater degree of verbal interaction during this time than was recorded during the fifth session. They assisted each other and offered the following opinions concerning their respective structures;

Arron said to Nicky: "It's not my size yet. You help me Nicky – please."

Ellie told Nathan: "I'm bigger than it now."

Nathan said to himself: "Make it bigger...uh oh, fall over."

Jack said to Arron: "Mine bigger here. I do it"

Luke said to Nicky: "Me want that one."

Nicky replied: "Well that's Jack's colour so if you want it you'd better ask him for it."

Luke asked Jack for a yellow brick: "Please Jack."



The 'reflecting' component emphasised interactive skills and developed their ability to make individual contributions to the group. Initially, this was a challenging experience for the SLI children as they were not supported or encouraged by the Nursery staff to speak during 'newstime' and were unused to taking a proactive role during their individual therapy sessions.

Nicky asked group L2 what experiences they remembered of the fifth session. At this stage of the movement program she received short answers. Cameron: 'Jumping.' Billy: 'Running around.' Francis: 'My books.' James: 'Marbles.' Christopher: 'On the table.' During the tenth week Nicky extended her questions to include not only what they had liked but also any element they had not enjoyed. Cameron (disliked): 'Waiting for going running'. Billy: 'Umm, I like the bricks best'. Francis: 'Making my books. I'm going to do jumping with Mummy when I go home.' Nicky noted in her diary at this half-way stage of the program that the additional 'reflecting' component had 'allowed them to talk more and they're now taking risks to speak because no one is setting them up to fail which is what they usually experience in the nursery.'

The three-phase structure of the sessions therefore provided the children with opportunities to implement a range of communicative strategies that did not focus primarily on achieving the correct form or production of oral language. In response to the post-intervention questionnaire Nicky made the following comments;

**"I experienced the communicative situation as one in which the children were not faced with the particular skills that are difficult for them, so they were very relaxed and their anxiety levels were not raised. In a similar way the sessions were accessible to all the children, i.e. a high level of equality so that they could participate at their own level safely and no one was excluded. As a Speech and Language Therapist, I observed the positive effect of music and movement on the children's attention and interest levels and in keeping the group together."**

In addition, Nicky concluded that the following experiences had been the most beneficial to her professional development in relation to the children's communication skills;

**"Reporting on past experiences within a 'do review' approach. Working as a member of a group and having someone else taking the lead. Awareness of my own physical self and identity and the knock-on effects within self-esteem and positive self-image –I think this has been the experience for the children too. A willingness for them to**

explore and take risks and have a go, e.g. with drawing and writing – even if they aren't at the same standard as the other children yet.”

“I have been very struck by the impact of the program on Luke, who has a profile of more general developmental delay and tends to be very passive and have difficulty initiating. He has reported back about every session to his mother at home. It has obviously been a very important and memorable part of his week despite his difficulties and a huge source of communicative opportunities for him.”

“The movement sessions have generally allowed them to be ‘freer’ and show more of their real personalities. They're much more confident about engaging orally now, and are beginning to contribute their own ideas in the nursery environment.”

Nicky's experiences of the movement program with the participant-researcher led her to acknowledge that the changes in learning environment experienced by the children and the flexibility of the Medau teaching method had enhanced a wide range of competencies. She used this knowledge to support her independent delivery of the movement program

#### **6.5.2 Nicky and her independent delivery of the movement program**

In her independent delivery of the program, Nicky not only made the link to future school behaviour more explicit but also emphasised the children's growing sense of individuality. She noted that this had started to develop during the initial program as their communication skills improved and described group L1 as becoming more ‘grounded and focused’ during their therapeutic sessions.

During the first ‘movement’ phase of her fifth session, as they jumped together to the music, Nicky chose one child in turn to jump in the middle of the circle. When she turned off the music and they all stood still she asked the group specific questions about the child standing in the middle: “What's Arron got on his trainers? Who is this on Nathan's shirt? What colour socks has Luke got on today? Has Jack got his favourite jeans on again?” The children experienced no difficulty in replying. As they held hands and moved together in a circle, Nicky focused on individual abilities and the children's developing sense of self. Video evidence recorded her interaction with each child;

Nicky said to the group: “Let's hold hands. *Luke* likes to do this, don't you, Luke?”

“We're going to move around in a circle now.”

**“I know you like running, *Nathan*, so we'll do that in a moment.”**

**“*Jack's* a good jumper, so we'll clap when he jumps.”**

**“*Arron*, you always remember what comes next. Can you tell us now?”**

In the third ‘recording’ phase of this session Nicky again focused on the children’s growing awareness of their individuality. As they sat around the table completing their books she pointed to each book in turn and asked them questions that related to their work. She asked the group the following questions;

**“Don't you think *Arron's* done some really lovely writing here?”**

**“Who do you think *Nathan* is going to show his work to?”**

**“Hasn't *Luke* done his stickers really well this week?”**

**“What will *Jack's* mummy say about his drawing?”**

The group responded to these questions without difficulty as they looked carefully at individual choice of colours, stickers and pictures.

Pre-intervention observational evidence revealed that the SLI children were discouraged from making verbal contributions during group-time in the nursery. Nicky acknowledged that in future school settings their ability to access this element of the curriculum may be a determining factor in ensuring peer- group acceptance. She therefore included this component throughout the three interlinked phases of her ten sessions.

Nicky used teddies during the second ‘apparatus’ phase of her first session that focused on ‘prepositions’. Each child in turn was asked which actions they considered possible for the teddies to perform. Arron replied: “They can walk, stand on *Luke's* shoe.” Nathan said: “Go down my jumper.” Luke suggested: “On my head.” Jack said: “Here” as he put his teddy behind his back. Nicky also encouraged the children to interact with each other as they used the teddies to explore the theme. Nicky asked Luke the following question; “What do you think *Jack's* Mummy would say if *he* did that?” (The teddy was sitting



on top of the car) Luke looked at Jack carefully and replied: "Very, very cross." Jack then said to Luke: "No, it's funny."

During her fifth session Nicky added a small refinement to the 'reflecting' component. This was implemented to develop further the children's independence and confidence in their ability to contribute their ideas and thoughts to the group. Nicky's independent decision was also clear evidence of the use of the action–research model for the purpose of the study. Having completed their books, each child picked out of a blue pot a small plastic shape to hold. They closed their eyes and remembered a sound that they had made in the session and any particular activity they had enjoyed previously in the program. They sat quietly as Nicky asked each child to contribute in turn. Luke replied: "Drawing" and made a telephone noise. Nathan answered: "The pink glue" and made an aeroplane noise. Jack said: "Jumping" and made a police siren sound. Arron replied: "Marbles" and roared like a lion. Nathan then noticed that Nicky had not told the group what she had enjoyed and asked her: "What did you like today?" In her diary entry for that week Nicky wrote of her surprise at Nathan's sensitivity and described this as evidence of his growing confidence and maturity.

Nicky extended the 'reflecting' component of her tenth session by five minutes in order to give the children the opportunity to discuss their individual preferences concerning colour. She again focused on the development of individuality as they looked closely at the book she had chosen from the library. The following questions were asked;

"Jack likes purple, don't you, Jack?"

"What's purple on this page Nathan? It's like something you're wearing."

"Can you tell me, Arron, which animal is black on this page? I know you think they're really scary."

"Luke, I bet you like the yellow chick best."

Nicky also used this time with the children to ask them which elements of her movement program had been the most successful. Arron replied: "Making my books and drawing a rabbit." Jack said: "Jumping. I make my books." Nathan: "The pink glue." Luke: "Teddies." Having viewed the video

evidence, Nicky made the following comments to the participant-researcher concerning the development of their communication skills;

“I can’t believe they’ve started to interrupt me now! And each other....they are so much more confident to say things now even if it does get a bit chaotic sometimes. OK, they still need help to clarify things but they can even argue amongst themselves which is just brilliant for them and very funny to listen to.”

Pre-intervention data highlighted the communication difficulties experienced by the SLI children within the nursery setting. They were given few opportunities to contribute within group situations in the nursery and individual therapeutic sessions did not relate directly to the rehearsal of communication skills in relevant or meaningful situations. However, within the movement sessions the SLI children experienced a learning environment that addressed a wide range of communication skills. Working with others of similar ability in a stress-free setting and engaging with manageable activities developed their confidence to contribute verbally about shared experiences.

The children also became more sensitive to each other’s difficulties through their experience of the movement program. When Luke was unable to remember the words of the rhyme during Nicky’s first session, the other three boys waited for him and Arron asked him if he needed help. Later, Arron helped Nathan and Luke to take the caps off the glue as they completed their books. Nicky’s extension of the ‘reflecting’ component gave them the opportunity to experience the conditions in mainstream schools under which they would be expected to contribute ideas and news to their peer groups

### 6.5.3 Summary

The following paragraph summarises the key findings of the ‘communication’ theme related to the SLI groups. The focus of communication throughout the study was on the physical, pre-verbal skills that form the basis of social interaction. The movement program was developed from observational evidence acquired during the pre-intervention stage of the study that revealed the children’s ability to interact with their peer groups and adults when engaged in manageable and mutually supportive activities. Nicky’s acknowledgement of the importance of pre-verbal communication skills had a positive effect on her independent delivery of the program. She began to appreciate the *process* of language acquisition and not

concentrate solely on the children's attainment on standard language achievement tests. She also included her own refinements to the program that was evidence of the implementation of the action-research approach.



# **CHAPTER 7**

## **Results The Montessori Nursery**

## **RESULTS :THE MONTESSORI NURSERY**

This chapter discusses the findings from the implementation of the Medau movement program in the Montessori setting. Evidence was acquired from questionnaires, observational visits, conversations, videotape and diary entries. As in the previous chapter, only meaningful responses to the questionnaires have been included as evidence. Therefore, not every question has been reflected equally in the data analysed. The findings are reported within the action-research cycle. The five themes that emerged from the study were; conflict, learning environment, teacher direction, transfer of skills and communication.

### **CONFLICT**

#### **7.1.0 Introduction**

In conversation with the participant-researcher and in her diary Kate revealed the communication difficulties the Montessori nursery children experienced on entering the reception year. Their curricular skills were mature and they worked independently with ease but she made the following comments regarding the effect their lack of interactive skills had on their schooling;

“What these children desperately need are better communication skills to manage the group activities that make up a huge part of the curriculum further up the school. There's nothing wrong with their brains, but because of the curriculum the nursery follows they don't arrive in reception at all well equipped to deal with what we offer. There's always a huge problem when they get here over the Montessori thing about choice. It just creates major difficulties in a situation like this because they can't just be allowed to do their own thing all the time and when we do try to impose some sort of structure they kick up a fuss.”

Kate suggested that the absence of continuity in curricula between the nursery and reception years resulted in a degree of conflict between her and the Montessori staff as she had to 'start all over again' when the children entered the reception year. They were unused to the increased level of adult direction and were unsettled by the refusal of the staff to allow them to choose their own activities. Kate was therefore unable to assume that the children possessed adequate communication skills to support her delivery of the mainstream curriculum. Their experience of cooperating in small groups on common tasks

was minimal and she argued that the lack of an effective language support system in the school also had a negative effect on their ability to play together. In addition, Kate wrote in her diary that the low level of contact with the Nursery staff and their assertive independence from the main body of the school resulted in essential information regarding individual children not being forwarded and significant problems being unresolved before the reception year began.

However, the Montessori staff were unaware of the problems the reception teachers experienced and when challenged on this issue by the participant- researcher they did not acknowledge the presence of any conflict between the curricula offered. Their main concerns were the difficulties of delivering the Montessori curriculum effectively, the encroachment of government guidelines and unreasonable parental expectations.

The Montessori staff cited the following difficulties as affecting their successful implementation of the curriculum. First, the number of children in the classes was too large (20) as the optimum number in a Montessori group should be no more than ten. Second, the age range of the children was too narrow that had a negative effect on the use of 'role-modelling' as a teaching aid. Third, the absence of a language support system affected the children's ability to understand demonstrations with the Montessori materials. Fourth, variable levels of staff support led to inadequate monitoring of the children's progress. These concerns resulted in conflict between the Nursery staff and the governors of the school who were ultimately responsible for educational resources and class size.

In addition, the Montessori staff acknowledged that governmental guidelines had started to conflict with their independence as Montessori practitioners. They revealed that inspections had become less relevant as the lack of understanding by the inspectors of the teaching method was significant. The Montessori approach was also often misunderstood by the parents who expected visible 'proof of learning' on a daily basis but did not support the staff in their efforts to clarify Montessori principles or develop their children's fluency in English.



The conflicting expectations concerning the behaviour of the children at home and in the nursery environment was also revealed by the Montessori staff in conversation with the participant-researcher. They commented that at the start of every school year a significant majority of children entered the nursery completely dependent on adults and often unable to perform even the most basic tasks without assistance. They were carried by their parents and carers to and from their classrooms, helped with their outdoor clothes and not encouraged to develop independent behaviour.

The Montessori emphasis on independence and self-direction was therefore a difficult concept for these children to grasp. The teachers reported that the children often needed two full terms to feel secure with the level of individual responsibility required of them. Kate responded that just as they became comfortable with one way of working they moved up to their reception classes in which the teachers demanded a different set of skills. Neither way of learning complemented the other and therefore a degree of conflict was inevitable.

A particular area of conflict observed during the pre-intervention stage of the study was the implementation of an inclusive policy for Patrick (M2) within the nursery. His recent diagnosis of six months language delay warranted only forty-five minutes of individual language therapy outside school per week. For the remainder of the time he was unsupported in a class of twenty children, the majority of whom did not possess English as their primary language. Patrick's scores on the IAP provided evidence to suggest that his immature fine -motor skills, absence of 'handedness' and dislike of physical proximity were all significant factors that affected his access to the Montessori curriculum. The behavioural difficulties that emerged from his inability to engage with the Montessori materials or join successfully in extra-curricular activities led to conflict between Patrick and his peer group and between the parents of his classmates and his teacher.

#### **7.1.1 Kate and her independent delivery of the movement program.**

Because of her Montessori background, Kate firmly acknowledged the reasons for the conflict between the nursery curriculum and that experienced by the children in their reception year. In conversation with

the participant- researcher after the fifth movement session of the initial program, and having viewed the video evidence, she commented that her involvement in the movement sessions had begun to resolve these difficulties;

“I can see how working like this is helping them develop skills that are needed later on and making them less isolated. Also the less able ones are learning a lot from those who are older and quicker. It's meant to work like that with the Montessori curriculum but it can't work without a common language and too many children. The program is definitely developing skills that are not really addressed in the nursery.”

During her independent delivery of the movement program Kate emphasised communication skills but related these closely to classroom topics. Her experience of the Medau approach to learning began to resolve the conflict between the children's Montessori experiences that required a minimal degree of interactive competence and the reception curriculum that demanded a significant level of ability to work as a group.

In Kate's fifth session 'shape' was the theme and red and blue paper squares and circles were used as the apparatus. Each child was given a selection of shapes and they sat in a circle to begin. In the following recorded interaction the combination of communication skills and curricular topics is evident.

Kate held a blue paper circle in front of her and said;

“Look, we're all sitting in a circle shape and I'm reading a blue book.”

Ali replied: “But mine's a newspaper.”

Kate said: “Well, that's all right, Ali, but mine's going to be a book.”

Kate then asked Ali: “Ali, can you stand up and put your red square in a corner of the room?” He placed his square on the corner of a bench.

Kate then asked Marie: “Marie, please put your blue circle in the same corner, and William, can you put your red circle underneath the table in a different corner.” All three children responded to the instructions without difficulty.

Kate's instructions then became more complex;

Kate said to Yumma: "Yumma, please go and find a matching shape and put yours on top of it. William, can you find a similar square so they match." The two children conferred as they walked around the room to find the requisite shapes.

Shiaka experienced some difficulty finding the correct coloured circle. Ali helped her by pointing to his circle and said: "You can put yours on top of mine if you like."

Kate then asked the group: "Do you think we can make ourselves into a square shape?"

Mathilde responded: "We'll have to make some corners, then."

Charlotte added: "We're going to need four sides."

Yumma then said: "Me and Mathilde can make two corners." The children shuffled around to make the correct shape.

During this twenty-minute period the children submitted their own ideas, discussed Kate's instructions with each other and offered assistance when necessary. They employed a range of interactive strategies to complete the given tasks as they rehearsed vocabulary relating to the concept of 'shape'. In addition, their understanding of the concept was extended as they used paper representations of the theme and experienced the concept physically. Kate noted at the end of this session that;

"They're not 'together' all the time, but they're interacting much more with each other and there's more of a group feeling now. I think it really helps them actually feeling what it's like to be in a circle or a square and having the shapes in their hand at the same time. It's a very difficult concept for them to grasp because the language can be used in so many different ways and they often get confused. It's also a really enjoyable way for them to understand things without always having to write it down."

The Medau principle of integrating areas of learning was evident during Kate's fifth session. Video analysis supported her observations relating to the communicative development of the children. They employed a range of interactive strategies that they had experienced during the initial delivery of the program by the participant -researcher. Verbal communication was evident as they responded to Kate's instructions and assisted one another to complete the tasks and physical communication was noted as they first formed a circle shape and then changed this to a square.



Throughout her ten-week program Kate emphasised the communication skills that, she argued, were not developed adequately within the Montessori environment. She arranged a meeting with the Nursery staff and submitted her session plans for the staff to assess. She then highlighted in coloured ink the activities that related most closely to the development of the children's communication skills. The Nursery staff agreed that a more supportive relationship with the reception teachers was essential in order to resolve difficulties concerning the difference in teaching styles. The level of conflict between the Nursery and reception staff was acknowledged by both parties to have a negative effect on the smooth transition of the children from the nursery to the main school. Through her independent delivery of the movement program Kate instigated the development of a closer relationship between the staff that was beneficial to all concerned.

Patrick's teacher revealed in conversation with the participant-researcher that his experience of the movement program had lowered the level of conflict noted between him, his peer group and the staff. His anger and frustration at his inability to engage in curricular activities had eased and this had a positive effect on his classmates' attitude towards him. His acceptance by the children in his movement group had also given him greater confidence to engage verbally with others and manage the transition from one setting to another.

Although issues concerning his future educational provision had not yet been fully addressed, his mother and class teacher provided written evidence to suggest that through his experience of the program the conflict between their expectations and his behaviour had started to be resolved.

### **7.1.2 Summary**

The following paragraph summarises the key findings from the 'conflict' theme related to the Montessori groups. A significant level of conflict was observed at the pre-intervention stage of the study between Kate and the Montessori staff concerning the preparation of the children for their entry to the reception year. The Montessori staff were in conflict with the governors of the school regarding class size and funding for specialist equipment. In addition, they commented on the lack of support given by the parents

and the difficulties they experienced integrating children with special needs. The Medau movement program addressed the communication problems of the children and their experience of group work and teaching on a theme had a positive effect on the development of their language skills. Kate highlighted communication skills in her independent delivery of the program and integrated their rehearsal with classroom topics.

## **LEARNING ENVIRONMENT**

### **7.2.0 Introduction: The Montessori environment**

A fundamental principle of the Montessori teaching method is the creation and use of a 'prepared environment.' This environment may involve only activities and materials that relate specifically to individual needs and anything extraneous is an 'obstacle' that must be removed. The aim of the 'directress' (teacher) is to create a learning environment within which every child is given adequate opportunities to 'forge their unique personalities while operating within a wider group.' The welfare of their particular group is of paramount importance to children and the limit on the freedom of individual behaviour within this 'prepared environment' is determined by the wellbeing of the group as a whole. To Montessori the ability to work effectively within a group was an essential skill to be mastered and a key factor in ensuring that children grow into peaceful, law-abiding citizens.

A second core principle of Montessori philosophy is the integration of outdoor and indoor environments through involvement of all the senses in the learning process. However, provision for the children in this Montessori setting did not incorporate adequate opportunities to engage effectively with the different environments they experienced that Montessori believed was a critical factor that ensured sound child development.

### **7.2.1 The indoor nursery environment: curricular skills**

The children in both participating groups spent their time at school in carpeted, interconnecting classrooms situated at basement level. These rooms had no view, minimal natural light and access to the

garden was via a door from only one of the classrooms. The majority of the children did not live locally and were either bussed in or driven by parents and carers.

Pre-intervention data suggested that Montessori rules and rituals relating to the 'prepared environment' were adhered to rigorously. The 'mats' that consisted of strips of carpet were only ever allowed to be used for 'work', the floor carpet was designated for use only during 'circle time', and tables and chairs were only ever used for the academic purposes for which they were intended. Rules concerning noise level, the designated way to carry materials to and from tables and the specific procedure to put on coats to play outdoors were a significant feature of the nursery day. Their correct performance was afforded significant value by the staff.

Time was also strictly regulated. Academic activities were afforded a significantly longer period of time than play. Play activities such as dressing-up or cooking were only organised for short intervals of approximately ten minutes during the day. The large numbers of children in each class also restricted the time they had to complete specific pieces of work or engage with curricular resources that included pens, glue and scissors. The emphasis on routines, rules, acceptable behaviour and 'fitting in' with the wider school environment by being quiet, lining up and remaining clean and tidy did not allow the Montessori group opportunities to fully engage with the fabric of the indoor environment or explore the possibilities of its properties.

### **7.2.2 The indoor nursery environment: communication skills**

The indoor nursery environment did not support essential communication skills that form the basis of positive social interaction. The Montessori promotion of personal choice of activities throughout the three-hour 'work cycle', the wide variety of cultural and linguistic backgrounds of the children involved and the paucity of opportunities to work together as a group on common tasks all conspired to deny them adequate rehearsal time for their communication skills. Even the extra-curricular activities the children experienced as a group (gym, ballet and judo) emphasised individual performance and did not provide opportunities to refine interactive strategies. Group French lessons and watching English Language



videos also did not provide a positive communicative experience for those whose knowledge of these languages was limited.

### **7.2.3 The outdoor nursery environment: curricular skills**

The outdoor nursery environment was not used in an effective or significant way to enhance the curricular skills of the Montessori groups. The absence of resources to extend their play and the passive attitude of the staff during outdoor playtime resulted in opportunities being ignored to rehearse the curricular skills that had been observed to be well developed indoors. The insistence by the staff on duty that the children remain clean and tidy at all times and 'leave them be' gave the children no opportunities to handle the materials that were available, for example, gravel, leaves, grass, twigs, conkers, acorns, and thereby denied them the possibility of transferring curricular skills to the outdoor setting. Observational evidence supported data gained indoors. The rules concerning lining up, keeping coats buttoned and gloves on were not disputed by the children who followed the rituals without dissent. Thus, there was no evidence of the Montessori principle of treating the outdoor environment as an extension of the indoor 'prepared environment' in this setting.

### **7.2.4 The outdoor nursery environment: communication skills**

The outdoor environment was not utilised effectively as a means to promote communication skills either. The staff did not engage with the children directly unless they were noted to be breaking the rules concerning climbing or cleanliness and no attempt was made to verbally support the children in their play. The absence of a shared language between the children and the staff provided the latter with a rationale as to their non- engagement during this time. Gaetan and Sophia (M1) attempted to play with the fallen leaves. They were firmly told to cease this activity. Caroline and Laudomia (M2) planned to play 'horses', a game that involved tucking up their skirts and coats. They were noticed by the staff who immediately rearranged their clothes and told the children 'No'. A group of four boys became frustrated when they were unable to organise their game around the trees. None shared a common language and a minimal level of assistance from a member of staff may have resulted in a positive experience for them.

When the participant-researcher suggested offering to help, a teacher replied that they should be 'left alone' as enough time was spent 'sorting out that sort of thing' indoors.

The engagement of the children with either the indoor or outdoor environments was not enhanced by the opportunities they were offered. Fundamental curricular skills were well supported indoors but for significant periods of time the children were isolated from each other and not engaged productively with the language and culture in which they experienced learning.

### **7.2.5 Inclusion and integration within the learning environment**

An additional issue in the Montessori setting was the inclusion of children with individual or special educational needs. Patrick (M2) who had been diagnosed recently as having SLI was observed to experience significant difficulty in both environments accessing nursery activities and communicating with his peer group. He was tall for his age and had started attending the nursery at 2.9 years. In conversation with the participant-researcher his class teacher acknowledged that accommodating Patrick needed careful consideration in the light of the diagnosis of a six-month language delay. He disliked anyone sitting or standing too close to him and reacted to unsolicited touch with aggression. He refused to sit at a table in the classroom or engage in activities that demanded a degree of fine-motor skill or that made his hands dirty.

He preferred to lie on the floor and play alone with his toy dinosaurs and Pokémon cards. This behaviour reflected his stage of social development and highlighted his lack of confidence to engage verbally either with adults or his peer group. Paul (M2) was the only child in his class with whom he interacted occasionally. Outdoors he was often in trouble for playing with the gravel and getting dirty. Although his classmates were tolerant of his behaviour a significant number of parents had complained to the Headmaster about his disruptive presence. This presented a difficult situation for his class teacher who was unable to access the level of assistance or resources to support him within a class of twenty children who possessed varying levels of competence in English.

In a learning environment that demanded a high degree of behavioural control and physical competence, Patrick did not experience the degree of support necessary to allow him to access curricular activities at an individual level or to complete tasks that included an element of social interaction. He was determined to follow his own time scale which, in a highly regulated Montessori environment, proved disruptive to the smooth running of his classroom. He was observed to eat his biscuits and drink his cartons of juice whenever he pleased and twice refused to leave the middle of the floor at the start of the French lesson and story-time. Technically he was *included* as he remained within the confines of the room but evidence of positive *integration* with his peer group was not observed in either the indoor or outdoor environments.

#### **7.2.6 The Initial Assessment Procedure (IAP)**

The IAP completed by the children involved in the study provided evidence to suggest that their curricular skills were well-developed and supported by the Montessori curriculum. However, the variety of languages and cultures experienced by the children were not supported by the curriculum and led to their relatively low scores on the communication component of the assessment procedure.

#### **7.2.7 The 'Immediate Environment' of the movement intervention program**

The Medau teaching method emphasises the critical importance to children of developing a close relationship with their 'immediate environment' in order to maximise the impact of learning experiences. The 'immediate environment' as related to the Medau method encompasses both animate and inanimate objects: the children themselves, adult participants and the properties of the physical environment within which they experience learning. For group M1 the setting chosen for the movement program was a carpeted classroom. For group M2 a large, uncarpeted room with a bare wooden floor was used.

The difference between the rooms had a significant effect on the delivery of the first 'movement' phase of the ten sessions. Group M2 were unable to use the floor effectively owing to health and safety factors throughout phase one of the program. During the third 'recording' phase they completed their books as



they sat around the tables instead of the floor as group M1 had done. Therefore the delivery of the initial ten movement sessions to the participating Montessori groups was not consistent in the use of the physical environment during phases one and two.

The use of the 'immediate environment' as a learning aid was also affected by the children's choice of clothes. Despite letters being sent home to the parents of children in group M2, the girls came to the sessions in white tights, dresses and inappropriate party shoes. They were very anxious not to get dirty and this had a negative affect on their use of the environment and the activities they experienced. In their first session, during which the teaching theme was 'strength' group M1 were able to use the carpeted floor to perform balancing positions individually and also as a group. However, group M2 were unable to do so for fear of getting their clothes dirty.

During the second 'apparatus' phase of the first session the environment in which this component was delivered also impacted on the children's experiences. Socks were used to extend the theme of strength. Group M1 used their socks to rub the carpet, clean the walls and polish a variety of surfaces. Owing to their wearing of suitable clothes they hid their socks under their jumpers, up their trousers and tucked them into their trainers.

Group M2, however, were unable to experience the same range of activities. Caroline and Alfred both contributed suggestions as to what actions they could perform with the socks ( wipe the floor and scrub the corner carpet ) but were prevented from doing by the Pat (the Montessori classroom assistant) because of the dust. Caroline also suggested during the 'free playtime' component that the group should 'be horses' and use the socks as tails. Due to the girls wearing dresses this activity was impossible. Pat made the following comments in conversation with the participant-researcher at the end of the first session with group M2;

"I didn't realise before this how much the environment affects opportunities for the children to do things. I felt so bad that because of the state of the room they were definitely hampered. And as for the girls' clothes... what a joke. You never get this problem in a Montessori setting because everything is always the same and we are never ever allowed to use the surfaces like this with them ...and they're certainly not supposed to use apparatus in any way other than what they've been shown by us."

In her statement Pat encapsulated the rigidity of the Montessori approach to the environment as translated in this particular nursery. It reflected her training and teaching experience and highlighted the difficulties experienced by Kate and Pat in accommodating the Medau principle of using the 'immediate environment' as an essential learning aid.

During the fifth session of the movement program in which 'sound' was the theme the physical properties of the two settings were used as learning aids throughout the first 'movement' phase. Pre-intervention observational evidence revealed that in their class music sessions the children only used the instruments in a prescribed manner. In contrast, the Medau approach connected the physical properties of the children themselves to the production of sounds and rhythms. Initially, they used their hands and mouths only in varying ways to create different sounds. The theme was extended further when the children used the carpet (M1) and the chairs (M2) to make sounds that they collaborated on and then copied from each other. Using the water bottles and accompanying small objects during the second 'apparatus' phase also gave them a level of independence and adequate time to create an individual range of sounds that their mainstream music sessions had not provided. In recorded conversation with the participant-researcher Kate made the following comments of group M1 after their seventh session;

"It's interesting watching them come into the room now. They notice much more about each other like their clothes and hair styles and I've watched Gaetan and Sophia running their hands over the surfaces - feelings things and making different noises. I think they're connecting more with where they are and through that with each other."

"I'm much more aware now of the possibilities within my own classroom and I try to make my lot notice things more like what things feel like or sound like and what's happening outside to the trees and the sky. It's funny but I do question all that expensive kit in the nursery. I know some of it's really important for Montessori stuff but I've learned a lot through the sessions that there's an awful lot you can do with the carpet alone if you're allowed to."

Kate revealed in this conversation that she questioned the allocation of school funds for the Montessori resources in the nursery in the light of her experiences of using the 'immediate environment' during the movement sessions. Kate was aware of the difficulties the nursery staff faced in delivering effectively the Montessori curriculum but recognised that the movement sessions supported the Montessori teaching principles of using the properties of the learning environment and all the senses as learning aids with minimal financial outlay or specialist equipment.



### 7.2.8 The movement intervention program

Owing to evidence gained at the pre-intervention stage of the study the emphasis of the movement sessions for the participating Montessori children was on the development of communication skills. During the first 'movement' phase of the sessions, the *physical* skills that underpin verbal communication were highlighted as the children used basic movement skills to interact with each another. During the second 'apparatus' phase the children combined both *physical* and *verbal* skills relating to communication as they worked with the materials. In their fourth session they used paper-bags to experience this unique integration of skills as they swapped the bags from their hands to another child's and waited their turn. Ali, Yumma and William engaged in the following exchange in English during this activity;

Ali said to Yumma: "What about mine?" (No- one had yet swapped bags with him)

Yumma replied: "You find another one Ali" (She ignored Ali as he put his bag up for her to take)

William said to Yumma: "I'm getting yours now" ( As they start to slowly swap their bags)

Ali said crossly to William: "That's my one." (He tried to interfere with the activity)

William replied: "No Ali, I'm with Yumma to do it." (Ali joined Silsila and completed the task)

The interaction between the children clearly demonstrates the Medau approach to learning. The *integration* of learning skills through physical activity was of paramount importance to the development of interactive competency. Targets for vocabulary acquisition were not included and the context in which skills were practiced was relevant and meaningful.

During the third 'recording' phase the emphasis was specifically on *verbal* communication as the children completed their books and shared resources. For both groups of Montessori children this time was lengthened throughout the course of the program from ten minutes in the first session to twenty minutes in the tenth session as the children became more confident to interact verbally. The final 'reflecting' component also gave them the opportunity to listen carefully to each other's voices and support individual efforts to communicate in English for an extended length of time. In her diary entry completed after the



tenth session of the initial program, Kate made the following comments regarding the communicative development of group M1;

“I think the most striking thing about the ten weeks is how they've learned to be together and to communicate with each other in English. Even the children who had very little English at the beginning are much more confident now in coming forward and talking. I think they felt secure in the environment and this encouraged them to talk. Also they had something to talk *about* because they were all doing the same thing at one time.”

“It's usually very difficult to stimulate talking in a classroom and it's very artificial sometimes. Doing it this way has really encouraged them to interact with each other. I've found the combination of skills very interesting especially the way that they were encouraged talk as they physically worked with each other. I know that's not allowed in the nursery but I think they're really missing out and it would do them so much good if even a little bit of working like this was included.”

Having reviewed the video evidence, Kate made the following observations to the participant-researcher at the end of the initial movement program.

“I think they were a seriously difficult group to begin with, and although they're not a completely 'together' group now, I noticed when I watched the videos that they always seem to be doing something with each other and interacting in some way during sessions. I certainly notice that their communication skills are loads better, even Gaetan, who I thought was a big problem to begin with.”

“I've begun to use movement a lot on a daily basis in my classroom and I can see how it has the same effect on the communication skills of my class. I ask my lot to jump so many times and sit down or put their hands wherever and walk back to their places. I think it's really helping my practice for the majority of kids who don't have much English. It's becoming a very natural way to operate now. I can see that you started with a real mish-mash of a group, and I was completely horrified that a good lot of them were moving into my class the following term. I think it was a revelation for me to work with them physically and see how their communication skills have grown.”

“I'm just thinking that if a group of children from different classes could get to this stage in such a short time it would be good to see how their teachers could use movement in their own classrooms with the other children who don't have much English. I think not making a big thing about using English helped because it gave them a lot of confidence to use what little vocabulary they already had and build on that. I'm quite sure if you had deliberately given them 'communication exercises' they would have gone on strike immediately.”

In her conversational evidence Kate highlighted the importance of the *context* in which language skills develop. The learning of specific vocabulary or grammatical constructions was not a feature of the program but the enhancement of confidence to communicate verbally in English was fundamental. The choice of specific themes each week 'anchored' the children's exposure to new vocabulary and the

rehearsal of communication skills in the three interlinked phases of the sessions maximised their opportunities to rehearse verbal skills in a supportive and secure environment. For Kate, evidence of their poor communication skills during the IAP and throughout the first five sessions of the program was not unexpected due to her previous teaching experience in the nursery but nevertheless of great concern. Through her participation in the study she began to formulate her own strategies for combining the development of the children's communication skills with curricular topics. This she achieved in her independent delivery of the movement program.

### **7.2.9 Patrick**

Video evidence revealed that, for Patrick (M2) the learning environment provided by the movement sessions had not afforded him adequate opportunities to develop his communication skills. His inability to withstand close proximity to his peer group resulted in his refusal to join in the first 'movement' phase of the sessions. When the group sat in a circle on the chairs (because of the dusty floor) he sat at a table by himself in a corner of the room rolling up string or playing with his dinosaur models.

The second 'apparatus' phase of the sessions was also problematic as he was aware of the difference in the level of fine-motor skill between himself and the other children. During the fifth session when the children were placing small objects in their water bottles to create different sounds he joined the group at the main table but held a library book upside down and pretended to read. Video evidence gained throughout the ten weeks suggested that the learning environment within which the movement program was delivered did not accommodate his behavioural and language difficulties.

Patrick's involvement with the group remained limited throughout the program. Video evidence revealed that he was isolated due to the high level of physical and verbal competence of his peers. However, his mother submitted the following written evidence in response to the post-intervention questionnaire;

"I feel that it was a great accomplishment for Patrick to participate in the movement program. It's important for him to try new things, because he thinks he can't do tasks, but he can. This was a very supportive environment for him and, even if he didn't join



in all the time, being in a small group context and not being forced to do things he can't do was a very positive experience.”

Her expectations of the program for Patrick were initially not high but she believed that the learning environment of the movement sessions *had* afforded him opportunities to interact with the group on his own terms and make independent decisions concerning which activities to engage in and for what length of time.

### **7.2.10 Summary**

The following paragraph summarises the key findings of the ‘learning environment’ theme related to the Montessori groups. Evidence gained from varying sources throughout the ten sessions suggested that the movement program provided the Montessori children with a secure and supportive learning environment within which their communication skills were rehearsed and refined. The Medau principle of utilising the physical properties of the ‘immediate environment’ to achieve this and the use of common fundamental physical skills as the basis of the program maximised the opportunities afforded the children to develop essential communication skills. Their confidence to interact verbally in English increased as the context in which language was introduced was relevant and meaningful.

## **TEACHER DIRECTION**

### **7.3.0 Introduction**

In the Montessori teaching method the directresses (teachers) are considered to be ‘facilitators’ between the child and the learning environment. The primary role of adults is therefore to construct connections between the adult world and that of the child. The ‘prepared environment’ should afford children opportunities to choose and engage with materials but only if their interaction with the materials abides by standard Montessori principles.



### **7.3.1 Pre-intervention evidence: The indoor nursery environment**

Pre-intervention data for both the Montessori groups suggested that the children experienced different degrees of direction during different times of the day in both indoor and outdoor environments. The behaviour of the children was highly directed indoors throughout the day and was anchored in the routines and rituals of the Montessori classroom. The children all shook the hand of their respective teachers as they entered. The teachers said ‘Which hand?’ and ‘Look at me, please.’ The manner in which they hung up their coats, lined up their shoes and chose their first activity was closely monitored by the classroom assistants. Two children who left their coats on the floor were asked to ‘go and do it again properly’. Patrick’s (M2) refusal to take off his rucksack and coat or engage with anything other than his personal toys was noted by two mothers of other children in his class who discussed with his teacher for how long this ‘non-Montessori’ behaviour would be tolerated. She replied that the nursery were ‘working on it.’

The majority of the tasks the children engaged in (carrying chairs and materials, putting on coats to go outdoors, walking through the corridor, eating fruit at break-time) all had corresponding rituals and specific verbal cues. A significant amount of verbal interaction between the children and the staff was noted to be embedded in behavioural directions; “How do we carry chairs in school?... Sit in a circle on the carpet... Put your coat on properly... Do up your shoes....Tidy the animals away.” Despite their continual repetition of these phrases, the staff failed to emphasise the particular vocabulary employed in these daily verbal interactions and vital opportunities were therefore overlooked to rehearse or extend the English vocabulary of their pupils. The children therefore experienced a significant level of direction relating to time and behaviour indoors.

In addition, the learning opportunities afforded the children in the nursery contained a subtle yet considerable degree of direction. Although they all chose their own activities throughout the three-hour ‘work cycle’ and completed them without adult direction or supervision, the level of direction embedded within the Montessori materials themselves afforded minimal opportunity for the children to explore the

varying possibilities of the resources. Ali (M1) was busy washing a chair when he decided to kneel on it and look through the bars, pretending he was a lion in the zoo. He was firmly told by his teacher to return to the given task. Sophia (M1) was practising the sweeping activity when she decided to move around the room and sweep as many surfaces as possible. She too was reminded that this was not the purpose of this specific task. Two boys standing by the sink were engaged in the pouring activity and attempted to fill up all the plastic cups that were drying on the side. They too were told firmly to complete the given task 'properly' and were separated in order to do so.

The Montessori principle of choice and the subsequent fostering of independence was implemented in this setting. However, the underlying element of control and direction within the Montessori materials had a negative effect on extending the children's engagement with the apparatus. Yumma and Charlotte (M1) chose to construct a tower with the pink Montessori bricks. This was an activity that the majority of their classmates completed daily. When they had made their tower they decided, without adult intervention, to construct a wall of bricks around themselves. The skills they had employed to complete the initial task (perseverance, precision, cooperation, concentration, fine-motor skill) may have been extended by this activity but their engagement with the materials in a non-designated way was immediately stopped by the Nursery staff.

In addition, the performance and end result of particular Montessori tasks were afforded higher status by the staff than the learning process experienced by the children as these were completed. Tooba (M2) was observed to complete a work-sheet that highlighted the number four. One of the pictures portrayed four builder's nails. She sat looking puzzled and examined her finger-nails. Her teacher praised her when she completed the given task but failed to notice Tooba's concern that her experience of the word 'nail' did not relate to the drawing she had coloured.

Within the writing activities experienced by the children a significant level of direction was also evident. They followed lines of dots on a page that made up single letters and finally their names. The teachers did not question whether this was a suitable activity for all the children considering their previous experience or exposure to printed material. Time and resources in the art corridor were again carefully



controlled. Each child was afforded five minutes to complete a picture using the same size and colour paper and used four colours that they were not allowed to mix. The children were actively discouraged from talking to each other about their work or examining that of their classmates due to the pressure of time.

### **7.3.2 The outdoor nursery environment**

In the outdoor environment the level of direction experienced by the children was less significant. There were behavioural restrictions regarding contact with the grass and trees but the staff did not actively engage with the children unless they had hurt themselves or a dispute needed to be settled. They did not consider the absence of engagement or direction in the outdoor environment to be problematic, as the following comments highlight; “They're quite organised inside, so what's the point? We need a break, anyway. It's good for them to just get on with it.” The children therefore experienced an outdoor environment within which there was a significant level of behavioural control evident in the constant reminders they were given concerning engagement with the environment, but minimal direction from the staff to support their play skills and overcome their communication difficulties.

With no language support system available for the children within the school environment the opportunities afforded them to engage in positive verbal interaction in English were limited. Each day they wrote in English, listened to stories in English and watched English videos, but a specific time to interact in English amongst themselves was not actively promoted. The staff did not organise activities to accommodate small groups of children who shared a similar level of competency in English and failed to appreciate the opportunities evident throughout the day that may have extended their use of vocabulary. The Montessori principle of introducing specific activities with ‘measured and limited’ vocabulary was observed in action during the pre-intervention visits. This had an additional negative effect on the opportunities available to the children to rehearse their English language skills.



### **7.3.3 The movement intervention program**

The movement intervention program did not include the reading, writing or copying of English phrases or words and no pre-specified targets for vocabulary acquisition were set. The emphasis of the movement intervention program for the Montessori groups was to create a supportive learning environment within which the children could develop the confidence to communicate verbally in English. The difference in the level of direction between the Montessori and Medau teaching methods became evident during the second 'apparatus' and third 'recording' phases of the movement sessions.

During their first session video evidence revealed that both groups of Montessori children were uncomfortable with the low level of direction they experienced during the second 'apparatus' phase in which socks were used to explore the theme of 'strength'. The Montessori groups rehearsed specific skills with the same Montessori materials on a daily basis. These resources were treated with great care and respect and were never used for any other purpose than that designated by the staff. During the first session, Sophia (M1) twice asked Kate, "Are we allowed to do this?" as she put her sock on her hand. Caroline (M2) said to Tooba (M2) during this phase: "This feels very funny doing this", as they rolled their socks into a ball.

The children in both groups were anxious not to 'be in trouble' or to 'make mistakes' during the 'free playtime' component before the third 'recording' phase. During sessions one, two and three this attitude had a negative effect on their ability to engage with materials in ways they had not experienced previously. The Montessori insistence on engaging with resources in a prescribed manner affected their confidence to explore the properties of objects and play with the materials used in the movement program. Video evidence revealed their initial puzzlement and concern as they used the apparatus in unfamiliar ways and their growing confidence to explore the possibilities of different materials throughout the ten-week program.

During their second session group M1 were initially reluctant and lacking in confidence to pursue their own ideas with the tights. With Kate's encouragement and assistance they placed their tights on their heads. William helped Ali who then pulled the tights over his own face. Sophia told him that he looked 'spooky' so he stopped and tried to put them on his feet. The children then decided that the legs of the tights made convincing ears and moved round the room pulling them into ever-longer shapes. In their eighth session group M2 used paper plates to explore the theme of number. Mohsen used his plate as a rocket during the 'free-play' component while Caroline and Tooba put them on their heads and pretended they were hats. Jumana put one plate under each foot and pretended they were her new shoes. The Medau principle of extending the use of materials and accommodating the children's own ideas was evident during this time. They were given the time, support and opportunity to explore the different properties of the apparatus while using the language skills they possessed to interact with one another.

The third 'recording' phase of the sessions was designed to give the children the time and resources to produce their own work without experiencing the same level of direction they were used to in the nursery. During their first session of the initial program children in both participating groups needed continual reassurance and praise for their work and choice of resources. Sophia and Gaetan (M1) were very anxious not to 'make it look messy' and were not confident in making decisions about colours and the layout of their books. Mohsen (M2) was worried that there was no worksheet for him to complete so he copied his name in pencil and insisted that Pat write it neatly for him in ink. Tooba (M2) spent this time repeatedly writing her name over two sheets of paper and deciding which was 'the best one' rather than using the colours and stickers.

For both groups the final 'reflecting' component was also problematic as they had limited experience of making individual verbal contributions during nursery time. They were unused to listening to each other's voices or speaking in front of a group. There was no specific class registration time in the nursery during which they were required to reply to their names or any period allocated to encourage individual verbal contributions. Kate noted at this early stage of the program that the children would be expected to read aloud and contribute to 'circle time' in English within a few months and that the preparation for these standard reception year experiences was therefore inadequate.

As the movement program progressed the children became more comfortable with the lower level of direction they experienced during the sessions and their confidence in expressing themselves in English increased. During their fifth session (sound) the children in M1 and M2 were divided into two groups and developed their own rhythms with the water-bottles for each other to repeat without adult direction. Video evidence revealed a significant level of discussion in English amongst the children as they decided who had the loudest or quietest sound and which surface made a 'fuzzy' noise (Caroline and Mohsen M2). In contrast to the Montessori approach to learning the children were given the resources and time to explore particular themes and use their own ideas. They also began to build on the English language skills they possessed by relating these directly to the chosen theme each week. Caroline and Mohsen (M2) were noted to repeat their discussion concerning 'sound' recorded during the fifth session when they used matchboxes to extend their understanding of 'speed' during the seventh session. In both sessions they talked of the different ways of making sounds on the table, the floor and on their clothes. Mohsen said in both sessions, "Bang it on the table like this. Rub it on your tummy." Caroline repeated the phrase, "If you do that [*rub the apparatus on her tummy*] it makes a swooshy sound."

Group M2 decided during the fifth week of their program that they no longer wished to follow the layout of their books as directed by the participant-researcher. They decreed that instead of following the original book format they wished to put everything on one large page so; "My mummy can see it on the wall" (Caroline) and "It's easier to see everything" (Mohsen). The flexible Medau approach to learning accommodated a significant change without difficulty. The children therefore experienced a degree of independence and group decision-making that supported and fostered their communication skills.

The task completed by both groups during the second 'apparatus' phase of their tenth and final session provided evidence that the children had accommodated the difference in the level of direction they experienced between the movement sessions and the Montessori curriculum. Group M1 performed the task with care and sorted the majority of different coloured objects into the correct hoops. Sophia asked Kate how the hole-puncher worked and Gaetan was intrigued by the magnifying glass and moved around the room looking at different materials. The two children decided that the objects they had chosen did not



fit into any given category so together they visited each box in order to find more items that they considered be like theirs. They were determined to enforce their decisions and twice told Ali (who had chosen a multicoloured biro and a red-and-white sweet) that his objects needed to be placed in 'their' group. Ali replied that there was 'enough red' in his objects to warrant their inclusion in the red category. Sophia then offered to find him something that was 'really red' and discovered a red superball in one of the boxes.

The difference in approach to learning between Medau and Montessori was highlighted during the 'apparatus' phase of the sessions. The two approaches share a common respect for resources but there is a significant difference in choice of materials and the purpose of the children's engagement with them. In the Medau teaching method there is no designated procedure concerning the folding of a paper bag (session four) filling a bottle with paperclips (session five) or sorting objects into coloured groups (session ten). These tasks were included to integrate a range of curricular and communication skills and did not relate to the correct performance of specific skills linked to particular resources. The Medau movement program did not involve prescribed outcomes that are a fundamental element of the Montessori approach to learning. The emphasis throughout the movement program was on the *process* of completing tasks rather than on an end product and proof of learning.

For group M2, however, the completion of the 'apparatus' phase of the tenth session was complicated by Patrick's behaviour. The difference in the level of skill and ability between him and the group and his communication difficulties were highlighted throughout this session. He found a red starfish flannel that he placed on one hand and proceeded to push it towards the other children's faces as they tried to sort the objects. He was not confident to engage with the materials and the degree of adult assistance he required was not compatible with the level of independence shown by the majority of the group. His behaviour highlighted the difficulties SLI children often experience in mainstream settings. He was present in the room and therefore *included* but the level of *integration* he experienced during the sessions did not effectively support his needs and abilities.

### **7.3.4 Summary**

The following paragraph summarises the key findings of the 'direction' theme related to the Montessori groups. The emphasis in the Montessori setting was on the correct performance of procedures that related to school behaviour and Montessori resources. The high level of direction the children experienced within the nursery had a positive effect on the development of their curricular skills but did not give the children the time or opportunities to rehearse communication skills that were revealed to be inadequate during the IAP. The lower level of direction the children experienced throughout the program had a positive effect on the development of their communication skills. The weekly theme provided a stimulus for the rehearsal of vocabulary within small supportive groups who shared a similar level of competency in English.

## **TRANSFER OF SKILLS**

### **7.4.0 Introduction**

The three-phase structure of the sessions was designed to maximise the children's ability to transfer learning skills from one environment to another. The volume and quality of evidence to support this theme in the Montessori setting was not significant owing to the low level of response to the post-intervention questionnaire of the parents involved. The teachers had advised that letters sent home concerning school matters rarely received a reply and communicating with the parents and carers was often problematic owing to language difficulties.

#### **7.4.1 Pre-intervention evidence**

Montessori supported the principle of 'seamless learning' in which skills are transferred between environments. However, this principle was not supported in the Montessori setting related to this study owing to the range of languages and cultures and timetabling demands.

Pre-intervention data suggested that the children experienced difficulty transferring skills and experiences between home and school. The nursery curriculum was delivered in English and the children were actively discouraged from speaking their own languages during school time. Staff were noted to say frequently, 'Only English in school please.' The school lunches consisted of traditional English children's food (fishfingers, chips and mince) that were unfamiliar to the majority of the children and the variations in clothing only highlighted cultural differences. Throughout the day they moved continually from room to room for lunch, French lessons, videos, music, gym, thus ensuring that any continuity of environment for an extended period of time was difficult to achieve.

#### **7.4.2 The movement intervention program**

During the course of the ten-week movement program the children were often observed by the nursery staff to rehearse the language and content of the sessions with their peer groups in both indoor and outdoor environments. The teachers noted during the fifth week that the children repeated certain phrases used during the sessions. In conversation with the participant researcher Ali's (M1) class teacher noted that he often said to his classmates, "Let's make a circle. Everyone hold on tight. This is a big circle. Where's my line." She commented that, "It's so funny because he sounds just like you." William's teacher also noted his repetition of the phrase, "Let's do a big stretch and thank you very much" at the end of the school day.

The more dominant personalities also organised their peer groups during outdoor playtime to join in activities that they had experienced during the first 'movement' phase of the sessions. The Nursery staff



reported that Yumma (M1) said, "Let's hold hands and go in" as she made a circle with her friends. Caroline (M2) suggested to her group that they should, "Put your hands like this and then we can go round." In both cases it was significant that the phrases were repeated verbatim in English and not translated into their primary languages. The choice of phrases they rehearsed was also significant because each phrase was accompanied by a specific action. This behaviour supported findings from the IAP in which they experienced significant difficulty completing the movement sequence when the visual cues were removed. The Nursery staff used repetitive phrases throughout the nursery day but none was linked directly to a physical action thereby diminishing the possibilities of communicative development. The environment in which the children first experienced the movement phrases had provided the conditions to support the transfer of communication skills.

In her diary, and having viewed the video evidence, Kate noted that during the third 'recording' phase of their fifth session group M1 had begun to talk more about their home cultures and transfer their experiences to the movement program. Video evidence revealed that Yumma discussed her holidays in Oman with Ali, who wanted to know if her mother's car was as big as his father's. William joined in the conversation with a list of his favourite models. In group M2, at the same stage of the program, Tooba and Caroline discussed the different hues of pink in their bedrooms, while Mohsen and Alfred talked about the computer games they played at home

In conversation with the participant-researcher the Nursery staff reported that the curricular skills of the participating children had been enhanced by their involvement with the movement program. They were more confident in their decision-making skills within the classroom and less in need of on-going adult support to complete activities. Ali's (M1) class teacher reported that during a writing task he located a rubber without immediately demanding adult assistance. He erased his mistakes without support and decided by himself to get a clean piece of paper to start the exercise again. Laudomia's (M2) teacher considered her less demanding of adult attention in the nursery and more confident to complete challenging tasks and correct errors without continuing verbal encouragement. Kate reported from her on-going discussions with the Nursery staff that the manner in which the children had interacted with

adults during the ten sessions had a significant impact on their general attitude towards the staff in the nursery. Ali's teacher summed up this change in attitude;

**"It's such a relief to get them off my back for a change.....they were just so pathetic before because at home everyone just runs around after them and they don't lift a finger. I think you've really made them grow up a bit and realise that they're perfectly capable of doing things for themselves if they want to badly enough. They're really good now about trying to sort things out on their own or get help from each other rather than asking for us all the time....I'm much less stressed now with children like Ali and he is so pleased that he's finally able to do things for himself."**

Patrick's (M2) mother was the only parent who specifically noted the ways in which he transferred the skills he acquired during the movement sessions to other environments. It is possible she was more focused on his behaviour due to her involvement with professional bodies and because she was more interested and aware of the content of the movement program than the other parents. She submitted the following observations in response to the post-intervention questionnaire;

**"It's interesting that before the program he used to hate the playground and the park and preferred to walk to see the ducks. Now he enjoys it and copes very well with all the activity. His speech therapist says his ability to focus and do what's asked of him has greatly improved. He's not opting out and refusing to cooperate like he did in the past. At home he's making a big effort with his behaviour and he's much better at transitioning and cooperating."**

Video evidence of the sessions had suggested that Patrick's low level of engagement with the content of the movement sessions had a negative effect on the transfer of skills between environments. His mother, however, revealed that there had been a significant transfer of skills between the sessions and his home setting and between the sessions and his therapeutic environment. Her response highlighted the difficulties acknowledged by the participant-researcher concerning the level of information given to the Montessori parents prior to the start of the program.

A meeting had been arranged before the movement program began to finalise the practicalities of delivering the sessions and to clarify the level of information given to the parents concerning the form and content of the sessions. In their response to the pre-intervention questionnaire the parents who replied emphasised achievement and performance. On the basis of these answers there was a distinct possibility that if they were given specific pointers to be aware of they may consciously rehearse certain skills and

thereby exaggerate evidence of their transference between environments. In contrast, if they were given no pointers at all they would not know what to look out for and possibly miss essential evidence.

It was decided during the meeting to allow the parents to ask questions informally and for the staff to give them the required information verbally. The telephone number and e-mail number of the participant-researcher was given to the parents who did not use either throughout the course of the program. Ethical approval that was granted by the parents for their children's involvement in the study did not specify the amount of information they were to receive.

A significant difficulty experienced by the Montessori children was the absence of opportunities within the nursery environment to transfer experiences from the second 'apparatus' phase of the movement sessions. Conversational evidence gained from the Nursery staff supported their transfer of skills from the first 'movement' and third 'recording' phases of the sessions but the difference in use of learning materials between the Medau teaching method and the Montessori approach was problematic for the children and staff to accommodate within the nursery setting.

It was of critical importance to the Montessori staff that the children acknowledged and remembered that certain activities were peculiar to the movement sessions only. Standing on the chairs and tables, making different sounds on the surfaces of the room or lying on the carpet were not to be repeated in their respective classrooms. In addition, materials were only to be used for designated purposes. Ali and William (M1) attempted to take off their socks in the classroom and put them on their hands. Their teacher used this as an example to the whole class of 'unacceptable behaviour.' Caroline and Mohsen (M2) tried to make different sounds with the plastic cups as they washed up. Again, this was considered 'inappropriate' and they were advised to stop immediately. The children accommodated the difference in approach to materials but the participant-researcher reminded them each week of expected 'classroom behaviour' when they returned from the movement sessions to their respective class teachers.

Conversational evidence concerning the basic movement skills used in the first phase of the sessions revealed that the children used the actions and accompanying language as framework for communication



with their peer groups. The Nursery staff also reported that the children's experiences of the third 'recording' phase had enabled them to become more confident and independent in their use of resources in the nursery. However, the absence of opportunities available in the nursery to rehearse the skills highlighted during the second 'apparatus' phase of the sessions resulted in a lack of awareness of a valuable stimulus to develop communication skills.

### **7.4.3 Post-intervention evidence**

Post-intervention evidence gained from conversations with the Montessori staff revealed further evidence of the children's transfer of skills and experiences between the movement program and the nursery environment. They made the following comments of group M1;

**"It's been a great experience for them and it's done our class a world of good. The tricky characters like Gaetan are more integrated now and the girls won't be pushed around by the boys so much. They seem much more confident talking in English now and don't get so upset if things go wrong work-wise. They'll sort it out amongst themselves now rather than come to me all the time."**

**"I'm very pleased that they've finally started to concentrate. I think being in a smaller group has really helped them to focus and not spend so much time interfering with each other's activities. I know they want to keep doing 'forbidden things' with materials but this nursery is attached to a Montessori training college and we just have to toe the line. Hopefully they'll do all the naughty things elsewhere!"**

**"It's been really good for their social skills to be in a small group all doing the same thing for a set length of time, working with music and having to talk to each other in English for a certain period. Using the directions from the sessions has helped them too. I think in a secure and supportive environment there's more scope for development in this area and it was a definite focus for chat in the classroom afterwards."**

**"I was very worried about Ali before it started and not pleased with Yumma's attitude to the other children. Ali has got a lot out of it. He's so much more settled and less anxious. I think being away from the really aggressive boys in the class has been a positive thing for him, and he's finally beginning to find his feet. Yumma is starting to think before she offers her opinions and she's much more sensitive now. It was really good for her to be with children she didn't know that well and couldn't dominate."**

Evidence gained during the post-intervention stage of the study revealed a significant level of awareness by the staff of the impact of the movement program on the social development of the children. They acknowledged that they rehearsed the phrases used by the participant-researcher during the first 'movement' phase of the sessions to enhance their communication skills in English and that the

independence afforded them in the third 'recording' phase had a positive effect on their confidence to engage with curricular activities. Specific skills from the second 'apparatus' phase were not transferred to the classrooms but the staff acknowledged that although their skills in this area were already well-developed their confidence to make decisions and interact as a group had increased.

#### **7.4.4 Summary**

The following summarises the key findings of the 'transfer of skills' theme related to the Montessori groups. The Montessori setting did not support the transfer of skills between environments for three reasons. First, the children were actively discouraged from using their primary languages thus denying them access to a major source of language development. Second, contact with parents was minimal and often not positive owing to their difficulties communicating in English. Third, the specificity of Montessori materials resulted in the children's inability to rehearse skills elsewhere. The Nursery staff provided a significant quantity of conversational evidence to support the transfer of skills from the Medau movement program to the nursery environments. The children used the actions and accompanying vocabulary of the first 'movement' phase as a framework for interactions with their peer groups and the third 'recording' phase had increased their confidence and ability to complete curricular tasks. The difference in approach to materials between the Montessori and Medau teaching methods prevented the transfer of skills from the second 'apparatus' phase to the nursery environment.

## **COMMUNICATION**

### **7.5.0 Pre-intervention evidence**

Observations acquired during the pre-intervention stage of the study suggested that the Montessori children possessed individual and well-developed cultural identities that were not supported or nurtured by their learning environment. The diverse cultures of the children who attended the nursery were represented by the visible differences in clothes, hairstyles and accessories. In addition, the fruit that was

brought in each day by designated children was culturally specific and their 'interest toys' also reflected their particular backgrounds. The children themselves were aware of the variations in their physical presentation and were noted during the pre-intervention visits to scrutinise each other's clothes and new shoes.

The prevalence of paper-based two-dimensional materials in the classrooms and the nature of activities peculiar to the Montessori method ensured that a significant majority of learning experiences in this particular Montessori setting were solitary and self-motivated. There was no suggestion of competition between the children, but the underlying expectation by the staff of an acceptable finished product was a significant feature of the learning environment. They were encouraged to complete activities in quiet contemplation without on-going adult support. Opportunities to interact with each other on common tasks, problem-solving or discussion were not specifically included in this curriculum.

The language difficulties the children experienced were significant. There was no available language support system in the nursery and the teachers, in conversation with the participant-researcher, cited the following replies from parents when they suggested that speaking English at home may assist their children's integration at school;

"I could speak three languages by her age so she'll pick it up anyway."

"We're going abroad soon, so I'm not that worried about the English."

"My English isn't that good, but it's OK and I can get by on it."

"It's better to have an American accent, so we'll wait until we get there to start her English."

The parents who responded to the pre-intervention questionnaires made clear their priorities regarding their children's education. The following comments were recorded;

"We would like her to play a musical instrument really well."

"She must have as strong an academic education as possible."

"I want him to fit in easily with the level of schooling he's at."

"He must reach his full potential in all areas."



**“I would like him to do more academic writing and drawing”**

**“I want her to become trilingual in French, English and Italian.”**

**“She must fulfil her potential and develop a love of learning that will last a lifetime.”**

**“I would like him to learn to write letters and read before he reaches five.”**

In addition to the absence of an effective language support system in the school, the apathy of the parents concerning their children’s fluency in English and their emphasis on achievement, the children were also actively discouraged from using their primary languages within the nursery. The only teacher who spoke fluent Arabic did not address the Arabic speakers in their language, and the gym and music teachers separated the French and Russian speakers during their lessons.

The nature of the Montessori curriculum, parental emphasis on academic performance and their apathy concerning the learning of English, the absence of a language support system within the school and the active discouragement of primary language use, were all factors that conspired against the development of the children’s communication skills in their learning environment.

### **7.5.1 The movement intervention program**

The first session of the movement program with group M1 highlighted the communication difficulties the children experienced working together as a group in an unfamiliar learning environment. Gaetan and Ali refused to join in during the first ‘movement’ phase and sat together in a corner as far away as possible from the main group. Sophia and William were anxious about the music as they had only ever experienced it as background ‘atmosphere’ in their classrooms and not as an intrinsic element of a lesson. Kate made the following comments concerning their communication skills in conversation with the participant-researcher at the end of the first session;

**“What a really difficult group of children. I don't know quite what we're going to do with them. They don't have a clue how to communicate or get on with each other and I'm not impressed by Gaetan and Ali's narky attitude and behaviour. They've been in nursery for two terms now and no one has sorted them out – do they get away with this all the time?”**

**“The language issue is a huge problem and they just don’t have the necessary skills to interact, but there are some strong personalities in there who I hope will help their development in this area. Maybe a smaller group and less control will bring them out of themselves. Doing things all together with the same materials is odd for them but maybe it will help their relationships.”**

Video evidence revealed that eye- contact and verbal interaction between the children in group M1 was limited and that they were sensitive to physical proximity. They refused to hold hands in a circle or touch each other’s clothes in the first ‘movement’ phase and during the third ‘recording’ phase they sat far apart to make their books. In contrast, group M2 did not experience the same level of difficulty owing to differences in the environment of the sessions. For health and safety reasons the children in this group started each session sitting on chairs and completed their books around a table. This ensured an adequate amount of personal space and a greater level of congruence with the Montessori environment. At the start of their first session Caroline organised the girls to sit on one side of the circle and Mohsen told the boys that they ‘had to’ to sit on the other. This divide was not a significant feature of group M1 but it had a positive effect on the level of verbal interaction recorded between the children in group M2. The girls looked at each other’s hair slides while the boys tried to catch each other’s feet. They used the English phrases they already knew to communicate with each other; “OK, that’s pretty. I’m better. Mine is pink” but returned to their primary languages when their vocabulary proved to be insufficient. In conversation with the participant- researcher Pat made the following comments;

**“I think they’re quite a good group actually in spite of the girls being so bossy and not having much to do with the boys. They don’t really understand much of what they say to each other but they seem to make up for it in other ways. I think they must watch the telly a lot because if you listen to them quite a lot of what they say is from there. I feel very sorry for Patrick because he seems completely out of sync with the others. Whether they will accept him on his terms will be interesting.”**

Video evidence revealed Patrick’s discomfort at sitting so close to the other children. He chose to sit by himself in a corner of the room pulling apart pieces of string. In consultation with his mother and class teacher it was decided that he would continue with the program but his behaviour and progress was monitored carefully by the Pat and the participant- researcher.

Video evidence revealed that the second ‘apparatus’ phase of the first session encouraged verbal communication between the children in both groups. Their experience of working with small apparatus in

the nursery and the absence of music during this phase afforded them a greater sense of security as they handled the materials. Eye- contact with each other was sustained during this phase and they communicated verbally with each other in English as they placed hands inside the socks. Gaetan and Ali (M1) joined in during this phase and both sat in the circle saying “Hello, hello, hello” to each other in different voices as they manipulated their fingers inside the socks. The girls in their group made faces with their socks and the following interaction was recorded;

Sophia said to Silsila: “Silsila look, mine's cross.”

Silsila replied: “This happy!”

Sophia asked Yumma: “Is your one sad?”

Yumma turned to Kate and asked: “Is it sad?”

Sophia then walked over to Yumma and put her sock into a ‘sad’ face.

During the second ‘apparatus’ phase of the third session playing- cards were used to explore the theme of ‘balance’. Video evidence revealed that during the ‘free-play’ component their confidence to engage with the apparatus in unfamiliar ways had increased and the following conversation in English was recorded;

Gaetan said to Ali: “Mine’s on my head.”

Ali answered: “What about here?” (He placed his card on one shoulder).

Yumma said to Ali : “It doesn’t work in this place.” (She had placed the card on her nose).

Alfred to Yumma as he tried the same position: “It’s OK if you don’t move.”

The children’s ability to work together as a group and use the vocabulary highlighted during the first ‘movement’ phase as framework for verbal interaction had increased. Their relationship with Kate and the participant-researcher became more relaxed individual ideas were accommodated and supported. The group observed Kate’s difficulty as she tried to balance the card on her nose and the following interaction was recorded;

Gaetan said to William: “She can’t do it.”



William asked Kate: “Do you want some help?”

Kate replied: “Well you could give it a try.”

Kate said to the group as the card fell off again: “I think we’re all going to have to practice this one!”

The theme of the fifth session was ‘sound’ and the children used water bottles and assorted small objects to create their own sounds. They made their own decisions concerning the size and colour of the marbles, buttons and paperclips that provided a relevant and meaningful stimulus for verbal interaction. Yumma told Sophia, “My bedroom's pink you know,” as she chose a pink button. Sophia replied that, “Pink and blue are my favourite colours.” Their confidence to pursue their own ideas with the apparatus had also increased. William rolled his bottle along the floor so it made a specific sound. Gaetan and Ali followed him and then the whole group rolled their bottles on the floor using different parts of their hands. Ali lifted his bottle above his head to look at the combination of objects from below. Sophia copied him and both children then encouraged the group to look for their ‘best button.’

The second ‘apparatus’ phase of the movement sessions was an essential element in the development of the communication skills of the Montessori groups and the *choice* of apparatus was significant. The apparatus chosen to extend the ten themes of the sessions was familiar to the children and easily available, although they had no previous experience of their use in a learning environment. In contrast to the resources available in PE and gym lessons that involved prescribed agendas, the materials used in the movement sessions did not include an inherent element of competition or the standard performance of specific skills.

The inclusion of an ‘apparatus’ phase gave the children the opportunity to communicate with each other as they worked with the same materials for a particular period of time on common tasks. Kate and the participant-researcher also engaged in the activities with the apparatus *alongside* the children that also supported the development of their interactive skills. The children were neither coerced nor advised to only speak in English but the movement sessions provided a meaningful stimulus that encouraged them to build on the language skills they possessed in a relevant context.

The third 'recording' phase of the sessions was a unique feature of the movement program and an additional means by which verbal communication was enhanced. The polaroid photograph taken of each child provided an immediate reminder of the activities they experienced with the apparatus and became an essential stimulus to verbal interaction as they waited for their images to appear each week. The following conversation between Kate and group M1 was recorded during the ninth session when balloons were used to extend the children's experience of 'time'.

Kate said to Gaetan: "What's this you're doing here, then?" (Gaetan put his hand over his mouth and giggled). She then asked Ali: "Ali, can you tell me what you think Gaetan's doing?"

Ali replied: "Holding his balloon like this." (He then mirrored Gaetan's action in the photograph. Gaetan then performed the action again and both boys laughed with Kate).

William then said to Kate: "What I did was good."

Kate replied: "Oh really, what was that then, can you show us?" (William put the balloon between his knees). "Can anyone else do that without falling over?" (The group all repeated this action).

During this session the majority of the children experienced no difficulty engaging with the materials to make their books. They were calm and focused as they completed their work and this behaviour reflected their extensive exposure to these resources in the nursery. Video footage revealed their growing sensitivity towards each other. Sophia repeatedly asked Ali if she could use the red pen. When he refused to share it with her Gaetan spoke to him, handed the pen to Sophia and took it back to Ali when she had finished. In addition, when William became frustrated that he was unable to write his name correctly, Silsila offered to help him. In group M2, Mohsen insisted that the box of coloured pens remained in front of him. Without adult assistance, Caroline placed the box in the middle of the table and told him he had to conform and 'share with all of us.'

The final 'reflecting' component became an increasingly important addition to the program throughout the ten weeks. Kate emphasised to the participant-researcher that the ability to stand in front of a class and share information was an essential skill to be mastered by the children before they entered the reception year. During the first half of the movement program each child stood next to her in turn as she described

their books to the wider group. In the sixth, seventh and eighth sessions she asked the children specific questions relating to their work to which they replied. During the final two sessions the children told the group about their books without adult assistance. This process was demonstrated in the interaction recorded between Pat and Caroline (M2) during sessions one, five and ten and supported the action-research process;

Week One: Pat: "This looks really interesting Caroline... I guess that's your mum and your big sister on that page... I like the way you've made a border here with the stickers...I can tell what your favourite colour is too. What fierce dinosaurs you've got there...I'd be jolly scared of them. I think this is a great bit of work...well done you."

Week Five : Pat: "Is this you, Caroline?" (Pointing at her drawing).

Caroline: "Me and my Mummy."

Pat: "What colour is Mummy wearing in your picture?"

Caroline: "I think it's pink."

Pat: "Does Mummy like pink?"

Caroline: "Umm, yes, very much."

Week Ten: Caroline: "This is me with long hair and lots of hair things and this is my Mummy in a ski suit. I didn't draw Daddy today and this is me holding a red ball. The stickers are a bit messy and I used lots of pink in it."

In conversation with the participant-researcher Kate and Pat supported the graduation of the level of independence over ten weeks. The Nursery staff had commented on the reluctance of the children to contribute verbally during 'circle-time' in the nursery and the contrast in their confidence to do so during the movement sessions. Three factors emerged as being critical to the children's level of engagement during the 'reflecting' component. First, the size of the group was small in comparison with the nursery classes that in turn allowed the children adequate time and support to contribute. Second, the three interlinked phases of the sessions emphasised thematic vocabulary and provided specific experiences



around which verbal interaction was structured. Third, the children were introduced gradually to the level of verbal independence expected of them that accommodated variations in confidence, motivation and ability.

Prior to the start of the third session of the initial movement program an additional 'pre-session' period was added to encourage communication between the participating groups of children who were drawn from the four nursery classes. Both groups met for ten minutes in the art corridor where there was a library corner and a fish -tank. The children in the classroom farthest away from the corridor collected their group members from the other three rooms This became an essential 'bonding period' for the children who did not work together as a group between movement sessions and experienced few opportunities to play together during the day.

By the fifth week of the program this 'pre-session' period had become an established component and the staff reported that the children in both participating groups had begun to greet and say goodbye to each other in English. Kate, in conversation with the participant -researcher observed the following of group M1 at this half-way stage;

"I think it's getting easier for them to communicate and they are better at being physically close to each other now. Adding a little bit before the session has definitely helped them get used to each other again and they seem quite happy to be chatting away in English. Children like Gaetan and Ali enjoy it and it gives them the chance to get away from the characters in their classes they can't handle. I think this is what's meant to happen at the beginning of the day but the numbers are too big and nobody is around to help with the language problems."

For Patrick (M2) this period became a critical element in ensuring that he was accepted by the other members of his group. He spent a significant amount of time alone during the nursery day observing the fish and watching people pass through the art corridor. He was therefore comfortable and confident in this setting and during the pre-intervention observational visits was greeted warmly by the caretaker and peripatetic members of staff.

The weekly 'pre-session' period gave Patrick an opportunity to interact verbally with his peer group as he pointed out to them the different fish and made them laugh by imitating how their mouths moved. Video

evidence of this period was not acquired but observational and conversational evidence acquired from Pat supported Patrick's mother's belief that the experience of engaging with a small group of children who were all completing the same program had a positive effect on his communication skills.

As the program progressed, the children's teachers noted their increased willingness to participate in English within class time. They arranged a meeting with the Head Teacher to sanction an extra 'circle time' before the children went home after the movement sessions during which they were given the opportunity to recall their experiences and show their books. Conversational evidence acquired from the staff revealed that this period became an important means by which verbal interaction was promoted between the participating children and their classmates. In addition, the staff reported an increase in their confidence and ability to speak clearly in English without the need for on-going verbal support. They acknowledged the value of allowing them the opportunity to develop a sense of verbal flow without experiencing continual correction and repetition from adults.

Through their observations of the children's communicative development during the program the Montessori staff acknowledged that their rigid implementation of Montessori principles may have hindered the children's progress in this area. Ali and Yumma's (MI) teacher made the following comments at the end of their tenth session with the participant- researcher;

"I think their communication skills have really come on a lot this term. I'm beginning to see a bit more of their potential and not just the difficult bits of their personalities. They interact with the other children in a much more sensitive way now and they're not so self-obsessed. I've noticed that if I make the time available for the class to just chat then they do it and they don't look nearly so anxious if I ask them something individually in front of the class. I have to stick to such a strict timetable but I can see what they miss out on much more clearly now."

### **7.5.2 Post-intervention evidence**

The level of response from the Montessori parents at the post-intervention stage of the study was not significant in quantity. However, those who did reply to the questionnaire made the following comments concerning the development of their children's communication skills throughout the ten-week movement program;

## Group M1 —

Gaetan: 'I think it provided a good social structure for him to develop his skills and he's beginning to enjoy the other physical activities offered in the school. He seems to be better in the garden playtime and doesn't get embarrassed so easily.'

Ali: 'I think it really helped him to be able to lead things and not just be a passive observer. He's also much more willing to talk to me about how he feels about things, and he's much nicer to his friends now.'

Mathilde: 'I think there's too much running around anyway, and they exercise far too much. But it has helped her confidence socially and she's okay now about going to her reception class, because some of her movement group are going to be in her form.'

Sophia: 'I think it's dramatically helped her socially. She's always had difficulty socially with new people, and doing work with other children in a small group has been really positive. Anything that helps overcome her shyness I think is beneficial for her. She has developed greatly in this area and it's given her confidence academically too.'

## Group M2 —

Caroline: 'She's had a great time and has really come on in all ways. She seems to have grown up a lot through this and is so much more confident.'

Paul: 'I think the program helped Paul develop in all areas, and I'm really in favour of learning communication skills in this way.'

### 7.5.3 Kate and her independent delivery of the movement program

When Kate delivered her movement program all the children in group M1 except Sophia had entered their reception classes. Despite timetabling difficulties she delivered ten sessions. Kate did not have the confidence to include music in her program and therefore focused on the second 'apparatus' phase in which music was not required. The flexibility of the Medau teaching method allowed Kate to base her program on the teaching skills she already possessed and emphasise the component with which she felt the most secure. Through her analysis of previous video evidence she concluded that the 'apparatus' phase of the sessions had been a critical factor in developing the children's communication skills. However, she omitted the 'free-play' component of this phase as she felt it did not 'sit comfortably' with Montessori principles concerning the appropriate use of materials.



Kate chose the theme of 'same/different' for her first session. The children sat in a circle holding different coloured beanbags and each child was asked in turn to find a bean-bag of the same colour somewhere among the group. Kate immediately emphasised very specific communicative competencies.

First, in order to sustain eye contact Kate said to Gaetan as he asked Yumma for her bean bag: "You're going to have to look at her properly if you want it." Second, to emphasise how to ask for something in the correct manner Kate said to Ali as he asked Silsila for her beanbag: "No, Ali, 'I want it' is not exactly a suitable way to ask for it is it?" Third, to encourage the children to part with materials willingly Kate told Yumma as she hid her bag under her skirt: "Hiding it like that isn't going to help a lot, is it?"

After the fifth session of her program, Kate made the following comments concerning their communicative development;

"We did 'stretching' last week with the tights and it was so funny. We had them on our heads and tied all the legs together. They were all saying "You're tied to me!" It was great. Everyone really enjoyed it and they really interacted with each other well. They're physically more able now too. It may be a mixture of getting older and being in a bigger room, but they can do everything I tell them now their confidence to try in English has improved. I try not to show them how to do everything now and just let them follow my verbal instructions. I try to get them to actually internalise and act on what I'm saying rather than what I'm doing. It makes them concentrate more on the words rather than relying on working out what the actions mean."

"They're looking out for each other more now. This has really come on hugely. It was difficult to hold them together initially, but it's so much better now. I say to anyone in my class each Friday morning, "Can you go and get so-and-so from Susie's class?" and then they all go there and then as a group go on to Celia's class and pick up anyone else and then come back to me. They've definitely formed some sort of bond."

Because of timetabling pressures it was not possible for Kate to deliver the third 'recording' phase of the sessions. She argued that a significant amount of time was spent in the reception year engaging in similar activities and that providing opportunities for the children to engage verbally as a group was more important. However, the reception teachers implemented independently the post-session 'circle time' that had been designed by the Montessori Nursery staff to allow the initial groups of children to relate their experiences of the movement sessions to their classmates. For Gaetan and Sophia (M1) this was a valuable opportunity to develop further their confidence to communicate verbally with their peer groups.

Their teachers reported that they now entered their classrooms after the movement sessions with Kate without adult support and reported back to their classmates without difficulty.

#### **7.5.4 Summary**

The following paragraph summarises the key findings of the ‘communication’ theme related to the Montessori groups. Pre-intervention evidence revealed that the main area of difficulty for these groups was the lack of opportunities they experienced to develop their communication skills in order to access successfully the mainstream curriculum. With no language support system available to the staff, minimal parental support to acquire fluency in English and the Montessori focus on independence and self-discovery, the children were disadvantaged in terms of communicative development. The Medau movement program emphasised *group* work and co-operation as the children completed activities during the three interlinked phases of the sessions. Physical experience allied to relevant vocabulary gave the children the stimulus to rehearse their English language skills in a meaningful context. Kate further developed their communication skills through the integration of classroom topics with the second ‘apparatus’ phase.

# **CHAPTER 8**

## **Discussion**



## **DISCUSSION**

### **8.0 Introduction**

This study aimed to affect change in two distinct areas. First, a change in the level of the curricular and communication skills of the participating children. Second, in the professional competency of a Speech and Language Therapist and Montessori practitioner. The children experienced a 10 session movement program based on the Medau teaching method. The SLT and Montessori practitioner received training throughout the initial delivery of the program with the participant-researcher. They subsequently delivered the program to the initial groups of children independently. Qualitative data was gained from a range of sources and an action-research approach was adopted throughout the practical phase of the study.

Pre-intervention evidence from the Language Unit and the Montessori nursery revealed unexpected similarities between the two settings. First, the communication difficulties experienced by the children were not supported by the rigidity of the therapeutic and Montessori curricula. In both settings opportunities were ignored that may have given the children relevant and meaningful contexts in which to engage in positive interaction with adults and their peer groups. Because of their previous training and professional experience, Nicky (SLT) and Kate (Montessori) overlooked the importance of the physical properties and competencies of the children to the development of their self-concept. Myall (1996) and James (1993) strongly suggest that children use their bodies as essential reference points during social interactions. Pascal (2003) insists that emotional well-being plays a critical role in effective early learning. The stringent guidelines of the therapeutic and Montessori curricula highlighted the children's weaknesses and difficulties. In the SLI setting, this adversely affected their ability to communicate and engage with curricular materials. Second, in both settings, there was a reliance on visual proof of learning in the form of work-sheets and the correct performance of repetitive tasks. The SLI children were therefore placed in a situation that offered them minimal chance of success and maximum levels of anxiety. Gammage (1999), Burts et al. (1990), Kraschen (1985), and Pert and Snyder (1979) suggest that stress has a profoundly negative affect, both physically and neurologically on the ability of young children to learn. In contrast, the Montessori groups (except Patrick) managed the curricular tasks without significant difficulty. Third, parental pressure was a significant factor in both settings and had a negative

effect on the professional competence of the staff. In the therapeutic setting, the parents focused on Nicky's ability to ensure that their children reached a standard of development to assist their entry into mainstream school. The pressure this placed on her was considerable and compromised her exploration of other avenues to assist her development of the children's language skills. In contrast, the Montessori parents were unwilling, or unable to fully understand a curriculum that they believed had minimal academic value. Fourth, both Nicky, Kate and the Montessori staff experienced significant difficulty delivering their curricula in an effective way. This was largely due to the assessment methods used and the ways in which these compromised practitioners in gaining a wider picture of the difficulties the children experienced in both accessing the curriculum and communicating effectively.

The issue of assessment was significant to the study and was pertinent to the formation and delivery of the IAP. Prior to their arrival at the Language Unit, the children had been assessed by a range of professional bodies. In contrast, the Montessori children had not been seen by the staff before their arrival in the nursery unless they were siblings of children already attending the school. The parents of the SLI children were rarely given an opportunity to discuss the problems their children experienced at home and in the nursery, and the Montessori parents frequently did not advise the staff as to their children's problems prior to their entry to the nursery.

Evidence gained from the children's completion of the IAP had a significant impact on the structure of the movement sessions. The study was qualitative in nature and adopted the action-research approach for the practical component. Data was collected from a range of resources throughout the study. Data supported evidence supplied by Dockrell and Lindsay (2000) who stated that the assessment procedures for children with SLI should be widened. Evidence gained from the parents and teachers in both settings suggested that the range and nature of the difficulties experienced by the children had not been addressed fully

This, in turn, had a critical consequence on the design of the study. Originally, each participating group of children had a 'corresponding' group and the study was to be comparative in nature. Pre-intervention evidence suggested that the SLI groups would be compatible. Although they were not designated

'control' groups, a sufficient degree of compatibility was assumed. However, evidence from the IAP with the SLI groups highlighted the difficulties in adopting this approach. The scores of the participating and original corresponding groups only served to emphasise the range and nature of their difficulties and render a comparative study inoperable. In future it may be possible to utilise an effective 'control' group but the participants may have to be selected very carefully to ensure a greater degree of compatibility. The five themes that emerged from the study will now be discussed.

### **8.1 The Movement Intervention Program**

Action -research methodology was implemented throughout the practical component of the study. The plan-act-observe-review scheme of the action-research model was supported by the choice of educational settings, the variety of data collection techniques, the role of the participant-researcher and the 'improvement of practice' that was a critical feature of Nicky and Kate's independent delivery of the program.

The five themes that evolved from the study (conflict, learning environment, direction, transfer of skills, communication) were intrinsically related to the development of curricular and communication skills and the professional development of Nicky (SLT) and Kate (Montessori).

#### **Conflict**

Evidence of conflict in both settings was acquired during the pre-intervention and intervention stages of the study. On a macro level there was conflict between the therapeutic and nursery curricula in the SLI setting and between the Montessori and mainstream curricula in the Montessori setting. On a practical level, Nicky experienced a significant degree of conflict concerning areas of responsibility for the SLI children within the nursery and accommodating the demands of the parents regarding future language support for their children. Law et al. (2000) state forcefully in their comprehensive report that a sensitive working relationship between teachers and language therapists is vital and 'heavily dependent on liaison' if effective collaboration is to be realised. Kate revealed that, in her opinion, the Montessori staff did not ensure that the children were equipped with the communication skills to manage the demands of a



mainstream curriculum. For both professional participants the differences in approach to language development between Medau, Montessori and Language Therapy caused significant problems.

To Montessorians, language evolves through the completion of practical tasks under specific conditions (Standing 1957). Through awareness of 'sensitive periods' that relate to particular areas of language development (speaking, writing, reading, grammar) the children acquire skills in an ordered and graduated fashion. The emphasis on 'order' however does not allow for imagination, spontaneity or the critical importance of developing effective communication skills. The therapeutic approach to language development also emphasises order and the acquisition of specific skills in isolation from relevant contexts (Bishop 1997). Again this is detrimental to the development of communication skills and the confidence to engage with curricular materials. However, the Medau approach used in this study emphasised the *context* in which skills are developed. The use of music and rhythm, apparatus, group work and above all, theme-teaching combined to ensure that skills acquired in isolation (standard therapeutic practice) or through self-directed tasks (Montessori) were supported and enhanced in a meaningful and relevant context.

In the therapeutic setting the involvement of the Nursery staff throughout the movement program was a critical factor in addressing the conflict between them and Nicky. They had not previously worked together *alongside* the SLI children and their active participation in the sessions provided video and conversational evidence to support the founding of a more positive and productive working relationship. The delivery of the initial ten sessions was the responsibility of the participant-researcher while Nicky and the Nursery staff played an active, supporting role. The high level of anxiety experienced by Nicky and the staff when they were responsible for the SLI children was lowered as the content of the sessions was determined primarily by the participant-researcher and no blame could therefore be attached to them for the children's behaviour. The consequent improvement in relations between Nicky and the staff as a result of their mutual experiences of the program resulted in more positive engagement by both parties with the SLI children in the nursery environment. Positive action was then taken to work together more closely to develop further the children's language skills. Nicky's relationship with the parents of the SLI children also improved through her participation in the program. Each week the children took home the books they

had made during the 'recording' phase of the sessions. Nicky wrote of the children's experiences of the sessions in the daily diaries that were read by their parents and suggested how certain language skills could be rehearsed in the home environment. Taking home their books not only gave the children 'something to talk about' but it also offered the parents ideas for activities that involved them in the therapeutic process and opened a new line of communication between interested parties. This is an area for further development. The parent's positive response to an increased level of involvement with their children's language skills suggested that a more collaborative approach may be beneficial in the future. This result upheld the principles outlined by Pascal (2003) that included a plea for children to become more active in their learning environments and acquire 'agency' that will lead towards their being empowered to better determine the nature of their educational settings.

Nicky's independent delivery of the movement program allowed her to address the difficulties she experienced in applying standard therapeutic guidelines to every SLI child. Bishop (1997) and Wilson (1998) both suggest that the acquisition and rehearsal of pre-verbal communication skills is an essential element in language development and that the emphasis on spoken language may have a negative impact on the effective use of these skills. The integration of Medau principles with therapeutic guidelines during her ten sessions gave Nicky a unique opportunity to focus on areas of language difficulty that she had perceived in the children but which individual therapy sessions were unable to accommodate. Her evidence revealed that having delivered her sessions she was less anxious regarding the children's progress on graduated oral exercises and accompanying worksheets and acknowledged the benefits of using the movement approach as an additional support for her professional practice.

Conversational and written evidence revealed Kate's frustration at the inability of the Montessori staff to prepare the nursery children for entry to the reception year. Through her involvement in the movement program with the participant-researcher Kate acknowledged this was the specific area of difficulty that caused her the most concern as the children entered the main school. She had daily experience of the negative effect that their poor communication skills had on their ability to engage with the curriculum. In her independent delivery of the movement program she therefore focused on communication skills and integrated specific pre-verbal skills with classroom topics. In addition, Kate further developed their oral



flow in English through her choice of activities with the apparatus. She used her experience of the initial movement program to promote a more positive relationship with the Montessori staff within the school and the Montessori staff in turn acknowledged areas of weakness in the curriculum and began to make provision to address these in the future.

The training process experienced by Nicky and Kate supported the 'mentoring-coaching' model described by Veenman et al. (2000). During the initial delivery of the movement program they participated actively in the ten sessions and were prepared for their independent implementation of the program by the participant-researcher. The 'autonomy and self-reliance' that Barnett (1996) and Gray and Gray (1995) suggest is a vital element in professional development was evident during this stage of the study. Costa and Garmston (1994) suggest that 'instructional behaviour' cannot be influenced until 'internal thought processes have been altered.' Evidence provided by Nicky and Kate suggests that their experience of participating in and then delivering their own sessions achieved this positive effect.

A fundamental ethical principal of the study was the avoidance of 'professional animosity.' Punch (1994) also highlighted the issue of researchers 'abandoning the field' once data has been collected. To address these concerns Nicky and Kate were in constant contact with their fellow professionals and at the end of the practical stage, gave a presentation with the participant-researcher of the findings. On-going contact has been maintained with both practitioners and their respective professional bodies.

The issue of the inclusion of SLI children in mainstream settings was highlighted in the Montessori nursery as a significant source of conflict. Video evidence of Patrick's involvement in the program revealed the extent of his difficulties interacting with his peer group and engaging with curricular materials. The level of integration he experienced with his movement group (M2) was inconsistent, which contrasted to that observed within the smaller SLI groups. His class teacher acknowledged the positive effect of the program on his general behaviour within the nursery, but these benefits were not further supported by his therapeutic or learning environments. Despite the combination of positive evidence from his teacher and his mother concerning the development of his communication skills through participation in the movement program Patrick's future in the school remained uncertain and issues surrounding his inclusion were unresolved. Law et al. (2000) recognised the difficulties involved in



resolving the problems of inclusion. Their evidence suggests that a significant degree of trust and honesty is critical between professionals if children with language difficulties are to thrive in mainstream settings.

### Learning environment

Drury (2000) and Lightbown and Spada (1999) suggest that language should be acquired in a meaningful context and Dodwell (1995) proposes that the use of children's primary languages in educational settings is of paramount importance in ensuring successful language development. The creation of an environment within which these suggestions were implemented was of fundamental importance to the delivery of the movement program. Similarities were noted at the pre-intervention stage concerning the relationship the children experienced in both settings with the different environments. The SLI children when they joined the mainstream nursery children indoors were allowed to choose their own activities. The Montessori children were also afforded the same level of self-direction in their indoor environment. In both settings the children chose to engage with materials that were manageable and required a minimal level of adult intervention or direction. The children were noted by the staff to repeat the same activities on a daily basis and no positive verbal interaction with adults was considered necessary if the atmosphere remained calm and purposeful and disruption was avoided.

The major difference between the two settings concerned the relationship the children experienced with adults in the *outdoor* environment. The SLI children experienced positive and productive communication with adults in this environment as they engaged with a range of manageable resources. The Montessori children were actively discouraged from interacting with the staff during outdoor playtime and valuable opportunities to encourage communication were ignored.

The relationship between participating adults and the children throughout the IAP and the movement program mirrored that observed in the outdoor SLI setting. This relationship was determined to be one of equality, mutual respect and support. The children were not confronted by unmanageable tasks and invited adults to engage with them and assist in activities. During the IAP and the program adults worked *alongside* the children to complete the same tasks. The use of the 'immediate environment' throughout the program may have played a role in fostering a more positive relationship between adults and children.

Pascal (2003) makes clear that the emotional well-being of children is a critical factor in ensuring positive early-learning experiences. Using the 'immediate environment' as a learning tool may have assisted in the change in relationships between adults and children and between the children and their peer groups.

In their written and conversational evidence Nicky and Kate acknowledged that the inclusion of the 'immediate environment' as a learning tool had led to changes in certain attitudes and behaviour by themselves and the participating children. The children had developed an awareness of the properties of their surroundings and had begun to use these properties independently as a means to extend their understanding of concepts. Nicky described the increasing sensitivity of the SLI groups towards their surroundings as giving them 'ownership' and a 'sense of where they fit into the world.' Nicky and Kate also acknowledged their change in attitude towards the potential and actual abilities of the children. Through the inclusion of the 'immediate environment' as a learning aid they had become less focused on the children's areas of difficulty and more positive concerning their individual strengths. This unique learning tool played a significant role in the 'mentoring' stage of Nicky and Kate's training and throughout their independent delivery of the movement program.

The restrictions previous training and experience had placed on their use of resources prevented them from identifying or extending the teaching potential of available materials in their respective settings. Through their experience of participating in activities *alongside* the children during the initial ten-week program they acknowledged the role that their respective professional guidelines had played in restricting the learning experiences they offered the children. The 'immediate environment' was used effectively by Nicky and Kate as a means to further extend the curricular and communication skills of the children.

In her independent delivery of the movement program Nicky integrated use of the 'immediate environment' with standard therapeutic exercises as she used the physical properties of her room to rehearse sounds and the rhythm of sentence structure. The use of rhyme was extended to enhance the children's confidence and sense of verbal flow as they engaged with the apparatus during the second phase of the sessions. The third 'recording' phase enabled the children to further engage with the 'immediate environment' as they completed their books and stuck her photographs in sequence on the



wall. In her evidence Nicky acknowledged that using the 'immediate environment' as a learning aid had increased the children's willingness to engage with curricular materials and had enhanced their communication skills.

Kate used the Medau principle of the 'immediate environment' to focus on the children's understanding of abstract concepts. Pre-intervention evidence suggested that the curricular skills of the Montessori groups were well supported by the learning opportunities they were offered. Their communication difficulties however were not addressed and this compromised their success in accessing the mainstream curriculum during the reception year. Kate's decision to highlight the second 'apparatus' phase throughout her independent delivery of the movement program combined her previous knowledge of Montessori materials with her experience of accommodating the communication difficulties experienced by her reception class. She recognised that the absence of learning apparatus relevant to the mainstream curriculum was a significant problem for the Montessori children who had become dependent on Montessori materials to aid the understanding of concepts. Her use of classroom materials as an additional learning support and the integration of available resources with communication skills was a unique experience for Kate. Throughout her program she used the Medau principle of the 'immediate environment' to encourage oral-flow in English while simultaneously extending the children's knowledge of classroom topics through physical experiences.

The use of the 'immediate environment' as an integral component of the learning process has close links to the principles of the HOREB teaching model (Janssen-Vos et al. 1998), Project Spectrum (Gardner 1991) and the principles of a Developmentally Appropriate Curriculum (Blenkin 1994). The HOREB model proposes that children should be actively involved in the process of learning through use of the environment and that teachers are 'partners' in their development. Gardner also supports the use of 'rich and engaging materials' and the creation of an environment that challenges nine specified 'intelligences'. The DAC proposes that children learn best in a 'rich environment full of concrete and interesting materials to explore.' The Medau teaching method fully supports these principles but differs in one critical aspect. The creation of an optimum environment for learning is important but the use of the physical fabric of the setting is an essential element in promoting development. However, the inherent



learning possibilities provided by the 'immediate environment' remain unappreciated and underused by curricula that purport to place the 'learning environment' at the centre of their rationales. The strength of using the *physical fabric* of the environment as a learning aid lies in its adaptability. In contrast to the Montessori and therapeutic environments that require specific conformations and materials, the Medau approach uses whatever the setting presents at the time. The size, shape and configuration of the setting is absorbed into the learning process without difficulty.

For Nicky and Kate the integration of the Medau principle of the 'immediate environment' with their professional practice during their independent delivery of the program was a critical element in ensuring that the third research objective was met. Also, this theme related closely to the ethical concern that the study was done 'with' not 'to' participants and Pascal's (2003) insistence that young children must be 'empowered' and have 'agency' in their learning environments. By using the 'immediate environment' as an effective learning aid, the movement program introduced the children to the possibility that they may contribute to the learning process.

### Teacher direction

The issue of teacher direction was a significant theme that emerged from the study. The children experienced varying levels of direction in different environments that affected the development of their curricular and communication skills. In the outdoor environment the SLI children experienced a level of direction that they accommodated without difficulty. Positive verbal interaction was noted as they engaged with the resources and accepted assistance from adults. In contrast, the Montessori groups experienced minimal direction outdoors and no materials were available to encourage verbal interaction. However, the children in both settings experienced a similar level of direction *indoors*. The SLI groups were afforded a level of independence to choose activities that was also noted as the Montessori children made their own decisions as to tasks. The SLI children experienced this minimal level of direction because they were unwilling or unable to engage successfully with curricular materials. The Montessori children did so because this low level of direction supported the Montessori principles of 'auto-education' and self-direction.

However, the high level of direction and order built into the fabric of the Montessori materials chosen by the children was significant and contrasted with the large play activities (water and sand) chosen by the SLI children in the indoor nursery environment. The level of direction within the Montessori materials related closely to the therapeutic resources used by Nicky during individual language therapy sessions. These also had pre-determined learning agendas attached to them and did not accommodate relevant or meaningful opportunities to extend the children's communication skills.

Opportunities to refine curricular skills were experienced on a daily basis by the Montessori groups but minimal opportunities were afforded the children to develop their communication skills. The SLI groups in contrast were not given adequate opportunities to develop either their curricular or communication skills in the environments they experienced. They avoided the curricular activities in the nursery because the level of adult direction involved was unmanageable for them and included a significant element of performance. They were also often unwilling to engage with therapeutic exercises owing to the emphasis on repetitive tasks and the inclusion of worksheets. The communication skills of the SLI groups were also not enhanced by the level of direction they experienced within the nursery and therapeutic environments. In both environments the conditions were not conducive to the development of communication skills owing to the significant level of adult direction necessary to engage successfully with materials and the consequent heightened levels of stress and anxiety. In addition, Nicky and the Nursery staff did not acknowledge the fundamental relationship between the children's minimal level of engagement with curricular materials and their low level of communication skills.

The level of direction experienced by the children throughout the Medau movement program was commensurate with that observed in the outdoor environment of the SLI groups. Participating adults worked alongside the children on common tasks and no language acquisition targets or worksheets were included. During the second 'apparatus' phase, in contrast to the use of Montessori and therapeutic materials that had specific learning directives attached and were used by individuals, the children worked as a group with the same apparatus for the same length of time to extend their understanding of concepts and rehearse relevant vocabulary. During the third 'recording' phase the children experienced changes in the level of adult direction that suited their individual needs and abilities.



Throughout the three interlinked phases of the movement sessions the children experienced an appropriate level of adult direction that supported the development of their curricular and communication skills. The flexibility of the method accommodated a range of outcomes and allowed for an on-going adjustment of adult direction that matched each situation. However, this theme also highlighted a significant criticism of the Medau method, that its flexibility renders it 'difficult' to implement. The sensitivity needed to gauge accurately the level of direction most suited to situations as they arise requires a significant degree of confidence in the material and an acceptance of varying outcomes. Initially, Nicky and Kate found the flexibility of the method confusing and threatening to their professional practice. Video evidence revealed that the main area of anxiety was the lack of 'order' they perceived in the sessions. They were both used to a significant level of control with the children, a low level of noise, and visible proof of progress via work-sheets.

For Nicky and Kate accommodating the difference in the level of direction between their professional practice and the movement program was a significant element in the mentoring process. Written and conversational evidence revealed their concerns but also their growing acknowledgement that the difference in the level of direction experienced by the children during the sessions had a positive effect on their engagement with curricular materials and on the development of their communication skills. Towards the end of their involvement with the initial movement program they acknowledged that the Medau teaching method *supported* their knowledge and experience and did not actually undermine their professional principles. In their independent delivery of the movement program they both allowed the children to interact with each other and the apparatus with a level of direction that maximised the possibilities for developing curricular and communication skills.

### Transfer of skills

In contrast to the Laban-based 'Every Child A Winner' (ECAW) program (Rockett and Owens 1997) and the PE-based 'Project First Step' program (Johnson 1996), the transfer of skills between environments was an essential component of the Medau movement intervention program. Pre-intervention evidence



revealed that this element was not considered by the Montessori staff or the Nursery staff in the SLI setting to be of particular significance in ensuring the development of the children's curricular and communication skills.

The promotion of skill transference between the environments experienced by the children was a significant theme to emerge from the data. The Montessori principle of 'seamless learning' was not evident in the setting chosen for the study and, in the SLI setting the only evidence of skill transference was parental support for the language therapy exercises via the children's daily diaries. A significant means by which language skills may be extended was therefore overlooked and unappreciated by staff in both settings.

Evidence gained from questionnaires, conversations and diaries revealed that children from both settings transferred the actions and accompanying vocabulary from the first 'movement' phase of the sessions to the indoor and outdoor environments of the nurseries and used these as a basis for interaction with their peer groups. Brown (1995) and Jenkinson (2001) state that *play* is fundamental in ensuring children's sound intellectual and emotional development. Pre-intervention evidence suggested that the children in both settings experienced difficulties in play situations due to their level of oral language skills. Through the repetition and reenactment of phrases and activities included in the movement sessions the children discovered a means by which to engage with their peers in a meaningful and productive manner.

Written and conversational evidence also revealed that the second 'apparatus' phase of the sessions provided a stimulus for the SLI children to transfer communication skills highlighted during the sessions to their nursery and home environments. The apparatus used was manageable and familiar to the children and they experienced adults working *alongside* them engaged in the same tasks. For the children therefore, re-creating these interactive situations in a different setting was not problematic. Curricular skills emphasised during the third 'recording' phase were also transferred by the SLI children to the indoor nursery and therapeutic environments. Nicky commented that the children's engagement with therapeutic materials was more productive and less stressful for both parties and the Nursery staff reported a more positive attitude to curricular tasks.

Evidence of the transfer of skills by the Montessori groups was compromised by two factors. First, the low level of response by the parents to the post-intervention questionnaire provided minimal information concerning the children's re-creation of movement experiences in the home environment. Second, the stringent directives associated with the Montessori materials prevented the children from transferring their experience of the 'apparatus' phase to the nursery environment. The Montessori staff however commented that the third 'recording' phase had given the children greater confidence in their decision-making and lowered their anxiety concerning errors. They were also more likely to ask their peer groups for assistance before requiring adult support.

For Nicky and Kate the transfer of experience and knowledge gained from their active involvement in the movement program with the participant-researcher to their independent delivery of ten sessions was a critical factor in their success. The flexibility of the Medau approach to learning also allowed them to transfer their previous training and professional experience to the context of the movement sessions. For Nicky the emphasis throughout the original movement program on different forms of communication, not just verbal, led her to see potential in the children that had been obscured previously by the therapeutic emphasis on oral performance and two-dimensional activities. The difference in focus of the movement sessions led her to consider a wider range of language competencies and relate these to a broader range of resources. For Kate, working actively alongside the participant-researcher and the children during the sessions prompted her to transfer material from the first 'movement' phase to her own classroom in order to address the communication difficulties of her reception class. In her independent delivery of the program she transferred her knowledge of Montessori practice and the particular difficulties she experienced in implementing the mainstream curriculum to create a unique learning environment for her movement group.

A significant body of data was therefore acquired to support the theme of transfer of skills between environments by Nicky, Kate and the participating children. However, it must be stressed that the movement program took place for only one hour per week. The time the children spent together in the nursery or in their home environments was not monitored and their natural development was not



accounted for. The low level of feedback from the Montessori parents also affected the quality of data to support this theme. A future study may focus entirely on this theme. Pascal (2003) suggests that early learning should promote a sense of 'connectedness' with children's cultures and environments. By involving parents more closely through the transfer of skills between school and home it is suggested this theme may be supported more effectively.

### Communication

Evidence from the IAP revealed that the children in both settings experienced significant communication difficulties that were not supported adequately by their school environments or the learning opportunities they were given. The therapeutic emphasis on vocabulary acquisition and oral performance targets failed to accommodate the wider elements of communicative competency and did not support the interactive skills the children were revealed to possess during the Initial Assessment Procedure (IAP). The Montessori staff failed to appreciate the extent of the children's communication difficulties or the role played by the Montessori curriculum itself in denying the children opportunities to rehearse their social skills in relevant situations. O'Brien (1996) suggests that language should be acquired in a 'meaningful context' and wherever possible 'must be consolidated through writing.' The movement program provided the children with a meaningful context for language acquisition and opportunities to anchor their experiences of the sessions through the creation of their books.

Pre-intervention evidence revealed that the SLI groups were afforded infrequent opportunities to work together in either the therapeutic or indoor nursery environments. The IAP revealed that when given manageable tasks they *were* able to complete activities as a group and use the communication skills they possessed to ensure success. The absence of vocabulary acquisition or oral performance targets also had a positive effect on their ability to complete the IAP and engage with the content of the movement program. The intrusive presence of more linguistically able children was avoided thus lowering the anxiety level of the SLI children. Video evidence revealed that working together in a small group on common tasks in a secure and supportive environment had a positive effect on the confidence of the SLI children to engage verbally with participating adults and their peer groups.



The Medau approach to learning gave the SLI children opportunities to build on the communication skills they were revealed to possess during the IAP. The individual structure of language therapy and their experiences in the nursery only emphasised their differences and difficulties to the other children. In contrast, the movement program highlighted their similarities and strengths. Movement skills were a uniting factor for the SLI children and by using these as the basis for the program, suitable conditions were created that allowed communication skills to unfold at an unforced and natural pace. The emphasis on the rehearsal of pre-verbal forms of communication that are critical to ensuring the success of later verbal interaction gave the children a platform of skills onto which they began to build oral competency and flow. The highlighting of pre-verbal skills was a unique experience for Nicky but she acknowledged that their lack of status in the standard therapeutic approach may have been detrimental to the social development of the SLI children.

The action-research model was a critical element in Nicky's independent delivery of the movement program. Her acknowledgement of the effect the initial program had on the communication skills of the group led her to focus on two specific areas during her sessions. First, the development of oral-flow, and second, an effective preparation for the next stage of the children's schooling. Her integration of the Medau principles of group-work, music and rhythm was related directly to the implementation of the action-research cycle.

In her independent delivery of the movement program Nicky extended the use of rhythm to include rhyme as a means to encourage verbal flow. She had commented that this was problematic in a therapeutic environment that emphasised the precise repetition of graduated oral exercises and did not support the development of fluency in meaningful situations. Nicky commented that the children's confidence to 'keep talking whatever' had increased to a significant degree as they repeated rhymes relevant to the sessions, engaged in verbal games using vocabulary related to the themes and reviewed books that contained memorable verbal patterns.

Pre-intervention observational and conversational evidence suggested that the Montessori groups were also given infrequent opportunities to work together in small groups on common tasks. In this setting the Montessori approach highlighted the differences between the children and the emphasis on self-directed learning combined to ensure that valuable opportunities to develop communication skills were ignored.

In common with the SLI groups, video evidence revealed that the three interlinked phases of the movement sessions provided the children with the stimulus and environment to develop the communication skills that they were revealed to possess during the IAP. Given manageable tasks and meaningful experiences on which to base their interactions, the children communicated with each other in English and rehearsed vocabulary in a relevant context.

The action-research approach was also instrumental in Kate's successful independent delivery of the movement program. Her experience of working alongside the participant-researcher and the children during the initial delivery of the program allowed her to evaluate the impact of the children's communication difficulties on their engagement with the curriculum. She acknowledged that a movement approach to learning had enhanced their interactive skills and used her experience of the initial program to develop ideas for her sessions without compromising professional principles.

Kate considered the use of music and rhythm to be of less significance to the development of the children's communication skills than apparatus and she therefore focused on this element throughout. In common with Nicky she also highlighted verbal flow but chose to do so through activities related to the apparatus rather than rhyme and verbal games.

Nicky and Kate both questioned the absence of language acquisition targets throughout the program. However the Medau principle of teaching on a theme supported the 'overlearning' of vocabulary as the children rehearsed the relevant language throughout the three interlinked phases of the sessions. In the first 'movement' phase the themes were related directly to the 'immediate environment', thus ensuring a meaningful context in which vocabulary was introduced. The repetition of this vocabulary as the children engaged with the apparatus during the second phase reinforced further the specific situations in which oral



language was used. During the third 'recording' phase the children remembered the themes and repeated the relevant vocabulary as they completed their books together. The addition of a final 'reflecting' component gave the children opportunities to share their feelings about the sessions with the group. The graduation of this particular phase over ten weeks from dependence on participating adults to independent contributions of reflections further reinforced vocabulary and enhanced the children's confidence to use their verbal skills in a positive and meaningful context. The flexibility of the Medau method would accommodate the introduction of a language program that Nicky suggested may be a useful modification. Greater parental involvement would be necessary but having experienced their positive response to the children's books she believed this would not be problematic.

## 8.2 Summary

In addition to evaluating the effectiveness of the IAP as a diagnostic tool, the study had two other main research objectives. **First**, to evaluate the effect of a movement program on the curricular and communication skills of pre-school children with SLI and EAL. **Second**, to evaluate the integration of Medau principles with therapeutic and Montessori practice alongside professionals. The ethical considerations of the study were therefore considerable and had a profound impact on the way evidence was gained and the way in which Medau principles were adopted by Nicky and Kate.

The evidence for change in the level of curricular and communication skills of the children was acquired from a wide variety of sources. A triangular approach was adopted in relation to video evidence that proved fundamental in support of their development in these areas. It was critical that the study was done 'with' no 'to' participants, that it was developmentally appropriate and empowering for participants, and that it had 'utility' for the children, parents and practitioners. For both groups of children the triangular approach guarded against possible bias by the participant-researcher. However, video evidence was viewed only by those involved in the study that supported the ethical principles outlined in Chapter Four. This evidence may well have benefited from review by disinterested parties or scanned by a particular computer program for specific quantitative evidence of change in curricular or communicative skills.



Nicky suggested that, in future, the movement program could be allied to a standard language program and that this may provide additional evidence to support the use of movement as a learning aid for language skills.

Evidence for change in the curricular and communication skills of the children was supported by evidence gained from a wide variety of sources throughout the study. This data revealed that the following **FIVE FACTORS** were instrumental in effecting change in the curricular and communication skills of the children.

**First**, the use of the 'immediate environment' and working in small supportive groups. The change in learning environment for the children in both settings was significant. For the SLI children, initially removing the table and chairs from the therapy room and working in small supportive groups created a learning environment that lowered the level of anxiety they had experienced previously and which may have affected negatively the development of their curricular and communication skills. By using the physical fabric of the setting and their own bodies as learning aids, relevant and meaningful experiences were created to extend their use of vocabulary and understanding of the chosen themes. In the Montessori setting, by avoiding the rigidity of professional guidelines that related to classroom layout and by engaging the children as a group with a common purpose and the same materials, their communication skills were revealed to have been enhanced.

**Second**, the implementation of action-research methodology and the flexibility of the Medau teaching method. In contrast to the programs evaluated in chapter two in which session plans were strictly adhered to and there was no possibility of reaction to the children's development by the researchers, action-research methodology and the flexibility of the Medau method afforded the participant-researcher, Nicky and Kate opportunities throughout the study to respond to the growth of the children's curricular and communication skills. This was critical in both settings. The introduction of a 'free-play' component and 'reflecting' time was in direct response to the children's growing confidence to engage with the apparatus and make individual verbal contributions at the close of each session. Nicky then extended the 'reflecting' time and re-introduced the table and chairs to her room in response to her concerns over the children's

future schooling. In the Montessori setting, the introduction of a 'pre-session' time was in response to concerns over the level of integration between Patrick and his group and Kate's decision to concentrate only on the apparatus phase in her program accommodated both her talents as a teacher and her decision to integrate the content of the sessions with classroom practice.

**Third**, the use of music and rhythm was a significant factor in effecting change during the practical stage of the study. Weikart (1996) found that the ability of children to react to a 'steady beat' was an important factor in predicting academic ability. Goddard-Blythe (1998) also agrees that a positive response to musical impulse may be a contributing factor to educational achievement. Different genres of music were used throughout the sessions to encourage the children to work together as a group. Nicky in the Language Unit also introduced a significant element of rhyme to enhance the children's oral-flow and develop their confidence to communicate verbally. However, in the Montessori setting, Kate did not use music as she was not confident with the medium and thought it would not add greatly to her particular program. If she had been better supported by the participant-researcher over this difficulty then the evidence that music was intrinsic to the development of the children's communication skills may have been stronger in this setting.

**Fourth**, the choice and use of manageable hand apparatus during the second phase of the sessions played an important role in the development of the children's skills. The apparatus chosen throughout the initial program with the participant-researcher and during the independent delivery of the program by Nicky and Kate was familiar and easily accessible to the children. Pre-intervention evidence found that the SLI children experienced significant difficulty in the nursery engaging with curricular materials which had a concomitant effect on their communication skills. During individual therapy sessions they were also observed to have problems engaging with the materials chosen by Nicy which led to both parties feeling a degree of frustration and stress. In the Montessori setting the children engaged effectively with the specialist equipment but the repetitive and individual nature of the strictly graded tasks had a negative effect on the development of their communication skills in English. In neither setting was the transfer of skills between the environments experienced by the children promoted actively or their own ideas as to how apparatus may be used acknowledged as important.



In both settings the children had minimal experience of working together in small groups on a common task. In the SLI setting the children were allowed to choose their own activities in the nursery and pursue their own agenda usually independent of their peer group. Similarly, in the Montessori setting in which the concept of 'choice' played a significant role in the delivery of the curriculum, the children started and finished activities with little direction from adults unless they deviated from the directives associated with the materials.

Throughout the movement program the children were given no choice as to apparatus, participating adults engaged in the same activities for the same length of time and the children were given the time and opportunity to submit their own ideas to the group and experiment with the chosen materials.

In the SLI setting pre-intervention evidence, particularly that gained from the completion of the IAP by the children, revealed that they had significant difficulty acquiring 'handedness', fine-motor skills and visual skills. They were very aware of their problems and avoided tasks that they knew would highlight their areas of difficulty to others. However, their experience of the 'apparatus' phase of the program had a positive effect on their curricular skills as video evidence revealed. Their confidence to engage with standard curricular materials increased as did the level of concentration and decision-making skills necessary to complete their books. Evidence that their visual skills were affected was inconclusive and this may be an area for further study.

A significant difficulty noted by Nicky at the pre-intervention stage was the lack of opportunities to develop the children's sense of oral-flow. Therapeutic sessions focused on very specific areas of language development but practical settings in which these skills could be rehearsed and refined were not available. By Nicky working *alongside* the children both parties worked on common tasks and vocabulary was introduced in a relevant and meaningful context. No specific language exercises were included in the sessions and the children interacted orally with each other in a mutually supportive and productive way. Video evidence revealed that because the apparatus was familiar to the children and Nicky worked alongside them their level of oral-flow increased to a significant degree.



In the Montessori setting, the curricular skills of the children were well-developed but again, minimal opportunities were afforded the children to develop a sense of oral-flow in English. Video evidence from the initial program with the participant-researcher revealed that the apparatus phase of the sessions had a positive effect on the development of the children's oral-flow in English. In common with the SLI groups, using the same apparatus and engaging in common activities was an unfamiliar experience. Kate's evaluation of video data gained throughout the initial program with the participant-researcher led her to focus on this particular element as significant in the development of the children's communication skills. Video data gained from her delivery of the movement program supported her decision. The children's confidence to communicate in English had increased and they were able to relate their experiences of her sessions without difficulty to their respective peer groups.

For the SLI groups the activities they experienced with the apparatus during the initial program led to a significant degree of skill transference between environments. The Montessori groups were prevented from achieving the same degree of transference of skills because of the strict guidelines surrounding Montessori materials. However, conversational evidence from the Montessori staff revealed that the children had used their experiences from the first 'movement' phase of the sessions to 'scaffold' their play.

The fifth factor that contributed to the development of the children's curricular and communication skills was the unique three-phase structure of the sessions. The design of the sessions allowed for a range of skills to be addressed simultaneously within the context of limited but relevant vocabulary. This vocabulary was introduced within a meaningful context and each week allowed the children to anchor words to specific actions and concepts.

The three research objectives of the study were as follows. First, to develop and evaluate the effectiveness of the Initial Assessment Procedure (IAP) as a diagnostic tool. As a procedure it was sensitive to a range of competencies and accounted for the qualitative data gained from both settings. It was effective in diagnosing the range and nature of the difficulties experienced by the children. Second,

to evaluate the effect of a movement program on the curricular and communication skills of pre-school children with SLI and EAL. Experience of the program was mainly effective in achieving this research objective. **Third**, to evaluate the integration of Medau teaching principles into the practice of practitioners in a therapeutic and Montessori setting. The flexibility of the Medau approach to learning and the implementation of action-research methodology were significant factors in ensuring the successful delivery of Nicky and Kates' programs.

### **Limitations of the study.**

There were four significant limitations to the study.

1. First, the original structure of the study included corresponding/control groups with the intention of gaining comparative data. Pre-intervention findings suggested a level of compatibility between the groups that may provide significant data. However, the IAP results revealed a level of incompatibility that resulted in the corresponding groups being withdrawn from the study.
2. Second, the numbers of children participating in the study were small and the practical element was of 10-20 weeks duration. The strength of this lay in the quality of evidence obtained but there are difficulties in extrapolating generalisations that may apply to larger groups or longer programs.
3. Third, there were no mechanisms in place throughout the study to account for the children's physical experiences apart from their participation in the practical sessions of the movement program. Data collection tools did include the parents and teachers of the children but did not accommodate daily consideration of factors that may have influenced the children's skill development throughout the program.
4. Fourth, the video evidence obtained throughout the study was only made available to certain parties in consideration of the Data Protection Act. This was a significant limitation as additional evidence from professional may have provided further support for the effect of the movement program on the curricular and communicative skills of the children involved.

### **Recommendations for further study.**

1. The movement program to be repeated with pre-school groups of SLI and EAL children with two modifications. First, the inclusion of corresponding/control groups should be implemented and closely monitored to evaluate the development of language skills. Second, the program may be linked to a standard language development program to assess increase in acquisition and use of vocabulary.
2. The movement program may be modified to accommodate younger SLI children at the point of diagnosis and during their first year of mainstream schooling. A support program for parents may be developed in order to maximise the impact of movement based learning and empower them to become an integral part of their children's on-going language development. In order to account more effectively for the possible influence of outside experiences on language skill development an 'activity monitoring' sheet may be used to be completed by the parents/carers.
3. The Initial Assessment Procedure (IAP) may be modified and further evidence acquired relating to its use as an informing and diagnostic tool. Acknowledged weaknesses relating to 'accuracy', 'replicability' and 'lack of ambiguity' should be addressed and the procedure implemented and assessed by a wider range of professionals.
4. A training or 'awareness' course may be developed to promote the integration of movement skills with professional practice. Movement skills remain under-used and ignored as a vital support to professional practice. Practical workshops may be considered as a preparation for deeper analysis of the effectiveness of movement as a means to promote the curricular and communication skills of young children with language difficulties.



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# APPENDICES

## **APPENDICES**

- 1. Ethical approval for the study**
- 2. Pre-intervention parental consent form**
- 3. Pre-intervention parental questionnaire**
- 4. Pre-intervention practitioner questionnaire**
- 5A Initial Assessment Procedure (IAP) CONTENT**
- 5B Initial Assessment Procedure (IAP) CRITERIA**
- 5C Initial Assessment Procedure (IAP) CRITERIA for 2D evidence**
- 5D Table of scores achieved by the children on the IAP**
- 5E 2D evidence of Patrick and Caroline for the IAP**
- 6. Christopher and Francis. Books completed during weeks 1/6/10 of the program**
- 7A Post-intervention parental questionnaire**
- 7B Post-intervention practitioner questionnaire**
- 8. Ten session plans for the initial movement program**
- 9. Field notes observation schedule**
- 10. Video data observation schedule**
- 11. Transcript of post-session conversation with Nicky (Language Unit)**
- 12. Transcript of post-session conversation with Kate (Montessori nursery)**
- 13. A personal statement**

# APPENDIX 1

COPY

Ref. 9947

26 October 1999

Lanya-Mary Manners  
3 Claredon Cross  
London  
W11 4AP

✓ 7/11/99

Dear Lanya-Mary

I am pleased to inform you that the Ethics Committee has now considered your application for approval of the project entitled:

**The role of movement in facilitating the acquisition of language in children 3-5 years**

and I am happy to confirm that it was approved, subject to the following provisos:

1. Participant should be able to volunteer to take part in the project
2. All pupils should be invited to volunteer
3. Parents information sheet and consent form should be separated.
4. Applicant should provide confirmation of consent from the nursery used in the project

**Please confirm in writing that you will carry out the above, and provide copies of any amended literature, having done so you need not re-submit your application to the Ethics Committee.**

The Ethics Committee approval is given on the understanding that:

- (i) any adverse reactions/events which take place during the course of the project will be reported to the Committee immediately;
- (ii) any unforeseen ethical issues arising during the course of the project will be reported to the Committee immediately;
- (iii) any change in the protocol will be reported to the Committee immediately.

Please note that ethical approval is given for a period of five years from the date granted and therefore the expiry date for this project will be Oct 2004. An application for extension of approval must be submitted if the project continues after this date.



# APPENDIX 2

## CONSENT FORM FOR THE PARENTS OF ALL CHILDREN INVOLVED IN THE MOVEMENT PROGRAM DEVELOPED BY LALA MANNERS.

Dear

Please could you complete and return this form to ..... by..... If you have any concerns or queries please contact Lala Manners on the following number.....

Thanking you in advance for your co operation.

I .....(name of parent/carer) hereby give permission for ..... (name of child) to be involved in the movement program to be implemented at .....(name of setting) between the following dates .....I understand that my child will be assessed at the beginning of the program and that video material will be taken throughout the sessions.

Signature of parent/carer.....

Date.....

## **APPENDIX 3**

**To all Parents of children participating in the Movement and Language programme.**

Dear Parent

Thank you for agreeing to let your child participate in the Movement and Language programme that I will be implementing in his/her school. I hope it will be a happy and enjoyable experience for him/her.

To enable me to gain a fuller picture, I would be very grateful if you could complete the enclosed questionnaire and return it to me as soon as is convenient. I know time is precious but your input will be of enormous value to the project and will be greatly appreciated.

1. How active was your child as a baby. (3 months and under)
  
2. Was there any particular physical activity that you can remember him/her enjoying at this age?
  
3. At what age did your child start to walk? Was it a bit of a struggle or did s/he find it quite easy?
  
4. At what age do you think s/he said his/her first words? Can you recollect what they were?
  
5. What sort of opportunities for physical activity was your child offered before starting school/nursery?
  
6. Are there any physical activities you would like to see your child offered in the Nursery?
  
7. Is there any particular physical activity your child presently enjoys? Do you have to pay for it?

8. Are there any activities your child does at school/nursery that s/he particularly likes ?  
Eg. Climbing frame/dressing up/sand play/playdo
  
9. Is there any activity your child dislikes either at home or at school? Are there any reasons for this?  
Eg. sticking/glue/construction?
  
10. Is there any activity either at school or at home that your child finds difficult or frustrating? Please give as full an answer as you can.  
Eg. Getting dressed/putting shoes on
  
11. Does your child have a favourite television programme or book? Is there a reason for their choice?
  
12. Do you have any firm views on the sort of schooling your child is being offered at the moment? Is there anything at all you would like to see changed? Please give as complete an answer as you can.
  
13. Do you have any particular ambitions for your child?
  
14. Do you feel that you play enough of a role in your child's education? Would you like to be more involved?



## **APPENDIX 4**

### **Questionnaire for Teachers involved in the Movement and Language Intervention Programme.**

Dear Colleague

I would be very grateful if you could fill in this short questionnaire before the start of the programme. Anything you say will be treated with the utmost confidence and will only be available to the research team. I know time is precious, but it will be of enormous value and will make a big difference to the success of the programme.

Thank you

Lala Manners

1. What opportunities for physical activity are you currently able to offer your class?
  
2. Do you organise any formal physical activity sessions? If so, please describe how and when they happen.
  
3. Have you ever tried ready made movement tapes with your class ? If you have, how successful have the sessions been?
  
4. Do you think the ratio between play/formal teaching is about right in your place of work?
  
5. Do you have any views on the Governments latest guidelines on the 'Foundation Stage'?
  
6. Do you think the parents of the children you teach have the right attitude to their childrens education?

Please feel free to add anything you like!

# APPENDIX 5A

THE INITIAL ASSESSMENT PROCEDURE (IAP)							
NAME OF CHILD + DOB							
GROUP + SETTING							
DATE							
TASK	SCORE	1	2	3	4	5	6
1. Peel off large red stickers and place on card.							
2. Peel off small stickers and cover up black dots.							
3. Unscrew the small pot. Take out one grain of rice.							
4. Unwrap a sweet. Make a tower with the remainder.							
5. Do up a shoe buckle.							
6. Place four hair grips on the edge of the card.							
7. Catch or pop a bubble.							
8. Climb unaided onto a small table.							
9. Balance on one leg unaided on the floor.							
10. Jump unaided and without music.							
11. Run unaided and without music.							
12. Perform sequence of 3 movements. No visual cues.							
13. Repeat the sequence with visual cues.							
14. Clap to the beat.							
15. Jump to the beat.							
16. Form a circle. Hold hands. Move R+L/in +out							
17. Wave across the circle. Maintain eye contact.							
18. Make a tower of hands on the floor.							
19. Run around the table. Wait for a turn.							
20. Stand still on the table. Jump down + assistance.							
21. As a group carry the table to the side of the room.							

**COMMENTS**

## **APPENDIX 5B**

### **CRITERIA FOR SCORING THE INITIAL ASSESSMENT PROCEDURE (IAP)**

#### **Score**

- 1 = Very competent. Understood the nature of the task and completed it independently without further verbal, visual or physical support. 'Handedness' is well established and fine and gross- motor movements are mature, fluid and well co ordinated. Child is able to concentrate on tasks that are completed with precision. Listening skills are evident. Child is able to co operate with others without difficulty. Ability to maintain a steady beat is established.**
- 2 = Competent. The nature of the task was understood without further demonstration. Minimal verbal cues required. 'Handedness' is evident and the child experiences no significant difficulty co ordinating movements. Less precise in performance than 1. Child co operates with others without difficulty. Ability to maintain a steady beat is evident.**
- 3 = Reasonably competent. The nature of the task was understood. One physical demonstration and further verbal cueing necessary. The performance of tasks takes longer and 'handedness' is not fully established. Fluid transition from one task to the next not achieved and concentration levels lower. Ability to maintain a steady beat not fully established.**
- 4 = Some difficulty experienced completing given tasks. More than one physical demonstration required plus on-going verbal and visual cues. 'Handedness' is not established and the child changes hands often. Gross motor co ordination is adequate to complete the tasks but fine motor co ordination is immature. Listening skills not well-developed. Poor level of concentration. Some difficulty experienced co operating with others. Difficulty maintaining a steady beat.**
- 5 = Significant difficulty experienced and a high degree of support required to complete the tasks. Child changes hands frequently and experiences difficulty co ordinating fine motor movements. Gross motor skills sufficient for the tasks but immature in style. Poor level of concentration and difficulty focusing on tasks. Difficulty experienced co operating with others and maintaining a steady beat.**
- 6 = No attempt made to complete the task.**



# APPENDIX 5C

## ASSESSMENT OF TWO-DIMENSIONAL EVIDENCE COLLECTED DURING THE INITIAL ASSESSMENT PROCEDURE (IAP).

Name of child.....

Group and setting.....

Date of assessment.....

Score	1	2	3	4
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1. Spatial awareness
2. Patterning/sequencing
3. Use of colour
4. Precision/accuracy
5. Fine-motor control
6. Representations

### General remarks

### Key to score

1. Large red stickers placed in a recognisable pattern and evenly spaced. Green stickers also well spaced and placed accurately over the black dots. Mature use of colour. Evidence of representation of objects and events.
2. Tasks not completed with accuracy. Uneven use of colour and some difficulty experienced representing objects and events.
3. Poor level of accuracy and minimal evidence of patterning or sequencing. Limited choice and use of colour. No evidence of representation of objects or events.
4. No evidence of engagement with resources.

**APPENDIX 5D**

This table shows the mean scores achieved in both settings for the Initial Assessment Procedure (IAP). Please refer to Appendix 5B for the criteria.

**SLI GROUPS**

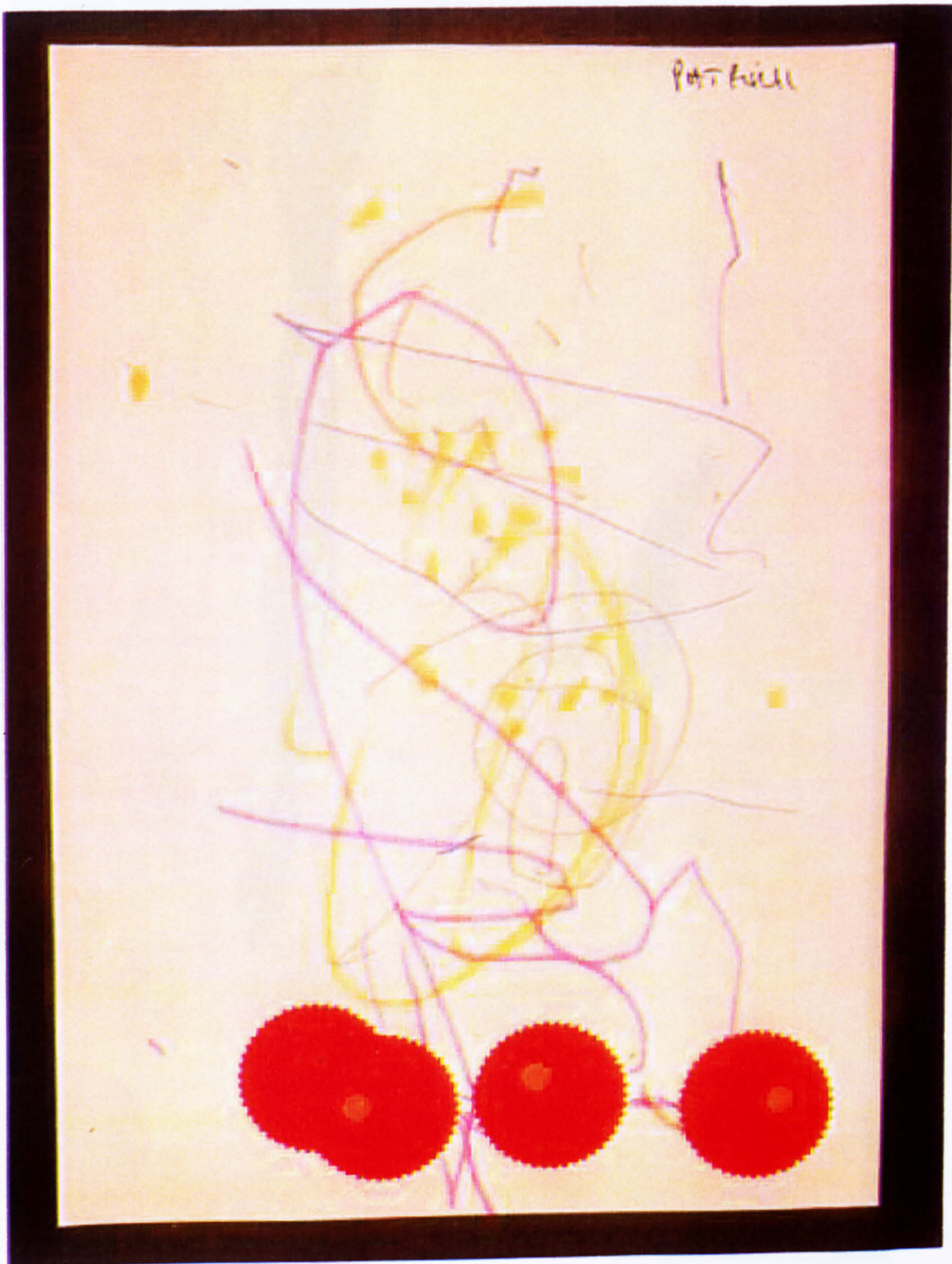
**MONTESSORI GROUPS**

Scores	Ave.							Ave.						
	1	2	3	4	5	6		1	2	3	4	5	6	
Tasks														
1	1	4	2	4			3	12	7		1			1.95
2		4		4	2		3.4	12	7		1			1.95
3			2			8	5.4	16	3		1			1.15
4	1	3	3	1	2		4	19			1			1
5		2		2		6	4.8	15	4				1	1
6		3		2		5	5	15	4				1	1
7		7			3		2.9	19			1			1
8		6	2		1	1	2.9	19				1		1
9					5	5	5.5	19					1	1
10	3	4	1	1		1	2.4	19		1				1
11	3	3	2			2	2.7	19		1				1
12	1	4	2			3	3.9	2		17		1		2.7
13	1	4	3	2			2	19				1		1
14		1		3		6	5	19				1		1
15		1		3		6	5	19				1		1
16	1	5	2			2	2.9		15			5		2.75
17	1	5	2			2	2.9		15			5		2.75
18	1	5	2			2	2.9		15			5		2.75
19	1	6				3	3.1	19			1			1
20	1	6				3	3.1	19					1	1
21	1	6				3	3.1	19					1	1



**APPENDIX 5E**

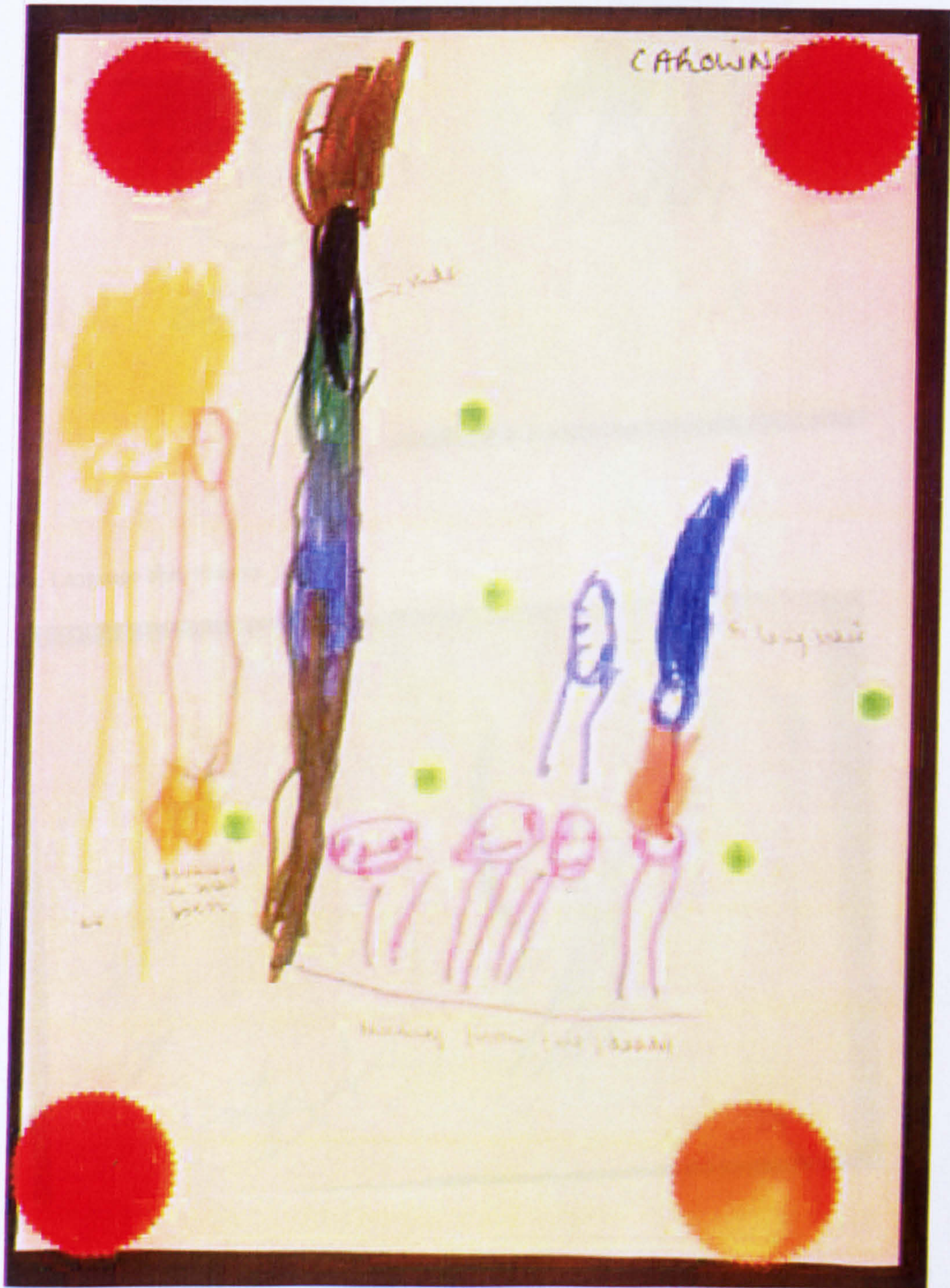
**Writing and Drawing evidence from the Initial Assessment Procedure (IAP) completed by Patrick (M2) from the Montessori Nursery.**





APPENDIX 5E

Writing and Drawing evidence from the Initial Assessment Procedure (IAP) completed by Caroline (M2) from the Montessori Nursery.





# APPENDIX 6

The Language Unit. Christopher. Week One



The Language Unit. Francis. Week One





The Language Unit. Christopher Week Six.



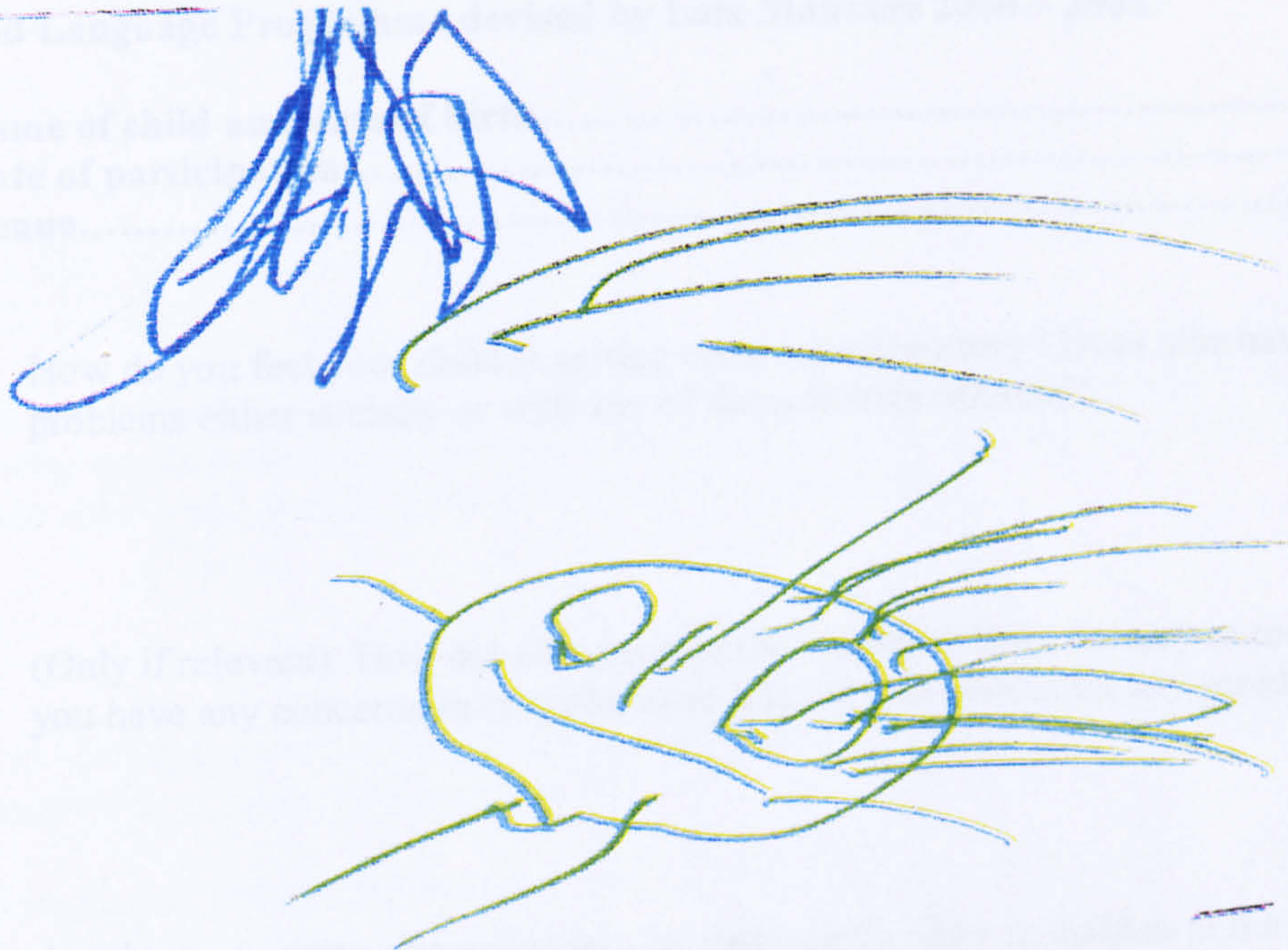
The Language Unit. Francis Week Six.





APPENDIX A

The Language Unit. Christopher. Week Ten



The Language Unit. Francis. Week Ten.





## **APPENDIX7A**

**Questionnaire for all parents/carers of children who participated in the Movement and Language Programme devised by Lala Manners 2000 – 2001.**

**Name of child and date of birth.....**  
**Date of participation.....**  
**Venue.....**

- 1. How do you feel your child is getting on at school/nursery? Does s/he have any problems either socially or with any of the activities offered?**
  
- 2. (Only if relevant) How did s/he manage the transition from nursery to reception? Did you have any concerns before s/he went and did s/he encounter any problems?**
  
- 3. Are there any particular activities s/he particularly likes or dislikes at nursery/school?**
  
- 4. Would you describe yourself as being satisfied with the standard of teaching and support your child is receiving?**
  
- 5. Is there anything at all you feel could be improved ?**
  
- 6. Do you feel that participating in the programme had any long term benefits in terms of enhancing social/communication skills or in improving formal skills needed to access the curriculum at school/nursery.**

**Please give full answers whenever possible as this will greatly affect successful outcome of the project. Thankyou for your support.**

## **APPENDIX 7B**

### **POST-INTERVENTION QUESTIONNAIRE FOR STAFF INVOLVED WITH THE MOVEMENT PROGRAM.**

Dear.....

Thank you for participating in the movement program. Please could you answer the following questions as fully as possible and do involve other members of staff if you feel they are able to add any thoughts or observations. Thank you.

1. Did you have any memorable experiences throughout the program? If so, please describe in as much detail as possible.
2. How do you feel the children responded to you in your different role? Any problems for you or them?
3. Did you have any significant concerns relating to the children or yourself before the start of the program?
4. If so, were these addressed throughout the program?
5. Do you think the program developed the children's curricular skills? If so, how and why.
6. Do you think the program developed the children's communication skills? If so, how and why.
7. Do you have any particular concerns about repeating the program independently?
8. Are there any elements of the initial program that you wish to highlight? If so, what are your reasons?
9. Has your relationship with other members of staff or any parents changed over the course of the program? If so, please describe how and why.
10. Do you think movement as a learning aid may have a place in Early Years Education in the future? If so, how and why.



## **APPENDIX 8**

### **TEN SESSION PLANS FOR THE MEDAU MOVEMENT PROGRAM**

## **SESSION 1**

### **THEME : STRENGTH**

#### **Phase 1 : 'Movement'**

Music : Scottish dancing.

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation.

All stand in a circle without holding hands. Jump without music. Stand still and wave to each other. Jump again - stand still and wave to a named person. Jump with music. Stand still then clap to the beat. Jump again but hold hands - stand still holding hands and wiggle. Introduce short sequence of movements. Jump for 12 beats- clap for twelve beats - stand still for twelve beats. Repeat.

All sit down. Introduce the theme using hands only. Squeeze, press, push hands on different parts of the body. Repeat movements using the floor and the walls of the room. Repeat vocabulary. Ask children how they feel – tired- hot – strong? Using their whole bodies ask the children to copy positions – hands on the floor, bottom in the air – take one foot off the floor. Can they think of their own positions? Using a participating adult – ask each child in turn to pick up her arm or leg – is this difficult? Two children try to help the adult to get up from the floor – is it possible?

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor co ordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory.

Communication skills : Assisting each other, eye contact, spatial awareness.

Introduce the socks. Hold the sock above each child – they try to catch it and pull hard. Children put one hand inside the sock. Find different fingers. Make faces with the sock. Point with different fingers to objects in the room. Squeeze hand very tight, release and pat different parts of the body. Change sock onto the other hand and repeat activities. Choose 'best' hand. Rub the carpet with the sock, 'clean' the walls, shake the curtains. Sitting down in a circle, roll the socks into a ball. Stand and throw socks in the air - at the wall – try under and overarm – both arms. Place the 'sock -ball' between knees then ankles and try to jump. Sit down and unroll sock into a straight line. Make a line of socks across the room taking turns to place sock accurately in position. Line up and creep/crawl/ jump in turn over the line. All hold hands and step together forwards and backwards over the line. Sit in a circle with the socks for the third phase to begin.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer- grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking, praise, humour.

Polaroid photograph of each child performing one action with the apparatus they remembered. Stick photo on front page of the folded card. Second page – own drawing. Third page – stickers. Back page – pictorial representation of the theme. Participating adults to discuss the finished product with individuals. Say goodbye and quietly leave the room.

## **SESSION 2**

### **THEME : BALANCE**

#### **Phase 1 : 'Movement'**

**Music : Ballet music.**

**Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary.**

**Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance.**

All stand in a circle without holding hands. Jump to the music and stand still when it stops. Put both arms above heads and hold this position. Jump again – put both hands on the floor when the music stops – hold position. Jump again – place feet as wide apart as possible when the music stops – hold position. Jump again – place hands and feet as wide apart as possible on the floor – hold position. Hold hands in the circle. Without music walk slowly left and right, in and out. When comfortable, use the music to repeat actions. Use the music to speed up and slow down actions to challenge balancing skills.

Put the table in the middle of the room. Place hands/heads/foreheads/noses/ears/elbows, feet on the table. All move round the table to the music. When it stops listen carefully to the body part to be placed on the table. Is it difficult to balance like this? End with children all sitting on the table. Each child in turn is helped to stand on the table. Stand very still and balance. Move table and all sit on the floor.

#### **Phase 2 : 'Apparatus'**

**Curricular skills : Fine-motor co-ordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory.**

**Communication skills : Assisting each other, eye-contact, spatial awareness.**

Introduce the playing cards. What are they and what do people do with them? What are the shapes called and do you recognise the numbers? Balance the card on the palm of one hand/ on the back of one hand/on two fingers/on one finger/nose/forehead/ear/cheek/shoulder/knee/shin/foot. Repeat tasks on the other side of the body. Try to make a card house as a group. Place card on the floor. Put on hand on top and 'skate' around the floor keeping hand in contact with the card. Change hands. Repeat the task with left and right feet. How difficult is it to remain balanced? Sit down. In turn place the cards on top of each other in the middle to make a small pile with the number sides facing down. Repeat the task with the number sides facing upwards. Make a line of cards down the centre of the room. Tiptoe down the line ensuring that the cards do not move. Repeat the task but move backwards then sideways – keeping balanced. Sit in a circle with the cards for the third phase to begin.

#### **Phase 3 : 'Recording'**

**Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, handedness, foveal focus, concentration, perseverance, memory.**

**Communication skills : Turn-taking, praise, humour.**

Polaroid photograph of each child performing one action with the apparatus they remembered. Stick photo onto the front page of the folded card. Second page – own drawing. Third page – stickers. Back page – pictorial representation of the theme. Participating adults to discuss finished product with individuals. Say goodbye and quietly leave the room.



## **SESSION 3**

### **THEME : STRETCH**

#### **Phase 1 : 'Movement'**

**Music : 'Venga-Boys'**

**Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary.**

**Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation.**

All stand in a circle without holding hands. Repeat the movement sequence from session 1 but add a fourth movement – stretch up high for 12 beats. Repeat X 3. Holding hands walk around in a circle for 16 beats – change direction. Move in and out of the circle for 8 beats. Repeat X 3. Stand in the circle shape holding hands for 16 beats while each child jumps alone in the middle. Those making up the circle will hold their arms up high and stretch/ place their feet wide apart while individuals are jumping. All make the circle as high as possible then as wide as possible.

All sit down. Introduce the theme using hands only to begin. Children try to stretch their hands to match the size of the participating adults. Try to stretch their bodies to be as tall/ wide and long as adults. Do they need help to achieve this?

#### **Phase 2 : 'Apparatus'**

**Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory.**

**Communication skills : Assisting each other, eye contact, spatial awareness, imagination.**

Introduce the tights. Hold a pair of tights for each child to seize and pull the legs as long as possible – do they have to move themselves to make room? Adult lets go and the child holds the tights as they spring back into shape. Pull one leg of the tights as long as possible – let go. Pull both legs and let go. Stand on the waistband and pull the tights so they reach head height. Adult assists to pull the tights as high as possible – let go. Tie all the tights together to make a rope. Adults take an end each. Children lying/kneeling/standing try to grab the rope by stretching first their legs then arms to reach it.

Tie the ends of the rope of tights together to make a circle. All children hold onto the tights and stretch them outwards and upwards as far as possible. Place the tights behind knees then ankles – move outwards as far as possible to stretch the circle – step backwards out of the circle and let the tights snap back into shape. Repeat with different groups of 2 then 4 then 6. Does it make any difference to how far the tights will stretch? Undo the tights. Each child puts their tights on his/her head. Long 'ears' to pull/ catch. Make an 'elephant' line one behind the other and hold on to the 'hat' of the person in front. Sit in a circle with the tights for the third phase to begin. **'Free-play' component with the apparatus introduced.**

#### **Phase 3 : 'Recording'**

**Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, handedness, foveal focus, concentration, perseverance, memory.**

**Communication skills : Turn-taking, praise, humour, confidence.**

Polaroid photograph of each child for the front page of their books. Sharing resources. Assisting when asked for help. Beginning to be critical of the presentation of their work. Confidence in decisions.

## **SESSION 4**

### **THEME : SHAPE**

#### **Phase 1 : 'Movement'**

Music : Greek folk music

- Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation.

All stand in a circle holding hands. Without music make a very big circle then a very small circle. With music move left and right then stop and make a big circle and a small circle. Be specific as to vocabulary as the actions are performed. Practice the movement sequence introduced in session 1. Add a fifth action – blowing a kiss across the circle. Repeat sequence as detailed in session plan 3. All sit down on the floor.

#### **Phase 2 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory.

Communication skills : Assisting each other, eye contact, spatial awareness, imagination.

Introduce the paper bags and give each child one in turn. Place on the floor and cover up the red oval shape with one hand. Who can remember what the shape is called – what colour it is – where is it on the bag – what shape is the bag? Using one finger trace a large circle around the bag on the floor. Using another finger, trace precisely the outline of the bag on the floor. Can this be performed successfully with eyes shut? Fold the bag in half to make a rectangle – fold in half to make a triangle – how can you make a smaller square shape or a smaller triangle or rectangle shape? What could the shapes be? Houses for animals – sandwiches – shoes – hats? Fold the bag into a tight pencil shape. Draw different shapes in the air, on the floor and on legs.

Unfold the bag carefully. Smooth out the creases using both hands. Place one hand inside the bag. Make different sounds with fingers inside the bag. Each child swaps his/her bag with someone else. Repeat 3 times. Put the bag on the floor and place both hands on top – push the bag around without falling over or bumping in to anyone. Repeat task using one foot then the other. Sit down. Place bag on the floor with one hand on top – scrumple up the bag into a ball using one hand only. Smooth out using one hand and repeat the task with the other hand. Make the ball shape again – throw the bag overarm and underarm at the ceiling and the walls. Kick the 'ball' around the room using both feet. Sit down and turn the 'ball' into a hat shape. **'Free-play' component.**

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking, praise, humour, confidence, independence.

Polaroid photograph for each child. Longer discussion as to choice of task to be recorded. Extend choice of colour and use of paper. Ensure all can manage tops of pens and glue. Think around 'reflecting' component for following week. Encourage greater degree of independence during this phase.



## **SESSION 5**

### **THEME : SOUND**

#### **Phase 1 'Movement'**

Music : Electronic

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening.

All stand in a circle holding hands. Is it possible to be completely quiet? If not, what are the sounds that can be heard? Does it make a difference if eyes are closed? Jump and make a loud noise on the floor – now jump very quietly. Jump to the music – when it stops, try to make the same sound as one of the adults (rubbing hands, stamping feet, blowing, gnashing teeth, shaking head, clapping hands) Is there a difference in the sounds these actions make? Children to lie quietly on the floor with eyes closed. Adult to make different sounds with the fabric of the setting (opening drawers, pulling sellotape, shaking a box of pins, writing on the board, closing a book) Children try to guess what the sound is without looking. Adult says children's names very quietly and individually they will sit up.

Using hands to begin – children will use different parts of their hands to make varying sounds on the floor. Actions will include patting, scratching, rubbing, pummelling. Then using their hands and mouths combined they will explore the different sounds that may be achieved. Each child will select a sound for the group to repeat.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening.

Communication skills : Turn-taking, eye-contact, listening.

Introduce the small plastic water bottles. Make different sounds on the floor using all parts of the bottle. Tap and rub the bottle on different body parts and listen carefully to the different sounds. Unscrew the top and blow into the bottle. Using the cap tap different rhythms on the floor/wall and surfaces. Three small objects will be placed by the children in each bottle – paper clip, button, pasta shape. Listen to the different sound each one makes if shaken in the bottle, rattled or tapped on the floor. Look at the objects from underneath the bottle, through the side and over the lip. Fill up the bottle with a selection of the small objects and listen to the different sounds the bottle makes as it fills. Possible rhythm component in groups at this point? 'Free-play' component.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

**Introduction of 'reflecting' component.** Polaroid photographs –encourage general chat within the group. Ensure that sharing of resources goes smoothly and check different grips re pens and glue. Accuracy and confidence in managing materials. Ensure more articulate children do not 'take over.'



## **SESSION 6**

### **THEME : PREPOSITIONS**

#### **Phase 1 'Movement'**

Music : English country dancing

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening.

All stand in a circle holding hands. Without music walk left for 8 beats and right for 8 beats. Clap for 8 beats and stand still for 8 beats. Repeat. Ask the children to remember 'What happens next.' With the music repeat the sequence and emphasise 'in – out – round – to the middle.' Make two lines facing each other. Hold hands. The two lines meet in the middle and retreat Repeat. One line stands still while the second line runs around and back to their place. Both lines stand still and clap for 8 beats. One line holds their arms up while the second line goes under the arches. Repeat sequence.

Place the duvet cover on the floor. Ask the children to sit 'on – next to – beside – under' the cover. Repeat the vocabulary using feet/hands only. Adults lift the duvet cover up so it makes a canopy. The children jump underneath it and try to touch it. Place the cover on the floor and the children sit on it to wait for the second phase.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine- motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening.

Communication skills : Turn-taking, eye-contact, listening, assistance, humour.

Introduce the small teddies. What can the teddies do? They can lie down or sit on/under/beside/next to/in front of/inside/behind.....They can jump on/to/on top of/beside/over.....with other teddies or alone.....they can hide under/inside/behind different body parts including arms/knees/tummies/back. Try to include the children's own ideas here and emphasise the vocabulary. Teddies all jump together on the duvet, when the music stops ask one child in turn to chose a position for their teddy that the group then follows. The teddies then jump inside the duvet cover. Adult keeps a teddy and places it in different positions around the room. The children are then asked the question, 'Where is my teddy.' They wait quietly for the third phase to begin.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

Build on the 'reflecting' component introduced in session 5. Extend the time spent on this phase and ensure each child makes decisions as to colours and position of stickers. Ask 'Why did you do that?' Encourage children to be critical of their work and are able to praise other's efforts. Spend time as a group looking at the books and discussing what they most enjoyed about the session, found difficult or did not like. Stick adult photos on the wall in a 'time line' and reflect on what we have done in the previous weeks.

## **SESSION 7**

### **THEME : SPEED**

#### **Phase 1 'Movement'**

Music : Hooked on Classics

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening, direction.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening.

All stand in a circle without holding hands. Sit down very quickly and stand up. Repeat X 3. The children put their hands on their heads/shoulders/ tummies then knees. They sit down and stand as fast as possible. Are they slower in different positions? All hold hands in a circle and try to sit down and stand up together – does this make the action slower or faster? With music repeat the movement sequence introduced in session 1 and the 'country dancing' sequence introduced in session 6. The sequences require quick changes of movements and direction so emphasise what it feels like to be moving so fast.

Play the 'duck – goose' game. All participants sit in a circle. One child walks slowly round the circle patting the head of each child and saying 'duck'. When he pats a head and says 'goose', that child will stand up and run round the circle as fast as possible back to their place. Each child will take a turn. Emphasise the difference in speed between walking and running.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening, working as a team.

Communication skills : Turn-taking, eye-contact, listening, assistance, humour.

Introduce the empty match-boxes. Slide the inside one way and the other with index fingers – how fast can this be done? Lay the two parts of the box on the floor – how quickly can the group put them all together again? Lay the boxes on the floor picture side up. How quickly can the group turn them over? Repeat X3. All sit in a circle. The group tries to make a tower of boxes in the middle of the circle – stress precision or it will fall. Have to go slowly. Then the group will try to make a wall with the boxes standing first on the long side then on the shorter side. □□□ → □□□□□ . Make this more difficult by asking for different sequences. □□□□ → □□□□□□ . Put a table into the middle of the room. The group will sit or kneel around it. Using one box only, the group will push the box across the circle from one to another. Try to get faster and more accurate in aim. Make this harder by stopping the box with only one hand/one finger/elbow. If time include 'free-play' component.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

Encourage review of each other's work – any new ideas they could use themselves? Self-reflection and praise. Emphasise what they felt like moving at different speeds- what made a difference?



## **SESSION 8**

### **THEME : NUMBER**

#### **Phase 1 : 'Movement'**

Music : South American

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening, humour.

All hold hands in a circle. Repeat the movement sequence from the previous week but try to reduce the level of direction so the children are encouraged to remember and perform the sequence as a group. Sensitivity to those less able and support for adults if they forget the movements. Make a large circle – no-one is in the middle. Choose one child to stand in the middle – emphasise vocabulary. 'Who would you like to join you? Now there are two of you in the middle.' Carry on until they are all in the middle. Explore the possibilities of number bonds – 'If we add another one – take one away – take you all away.' Make this fun by changing what they do in the circle, 'What if we add/take away another jumping/wiggling/stretching/curled up person? Change the ways in which they get into the circle – crawling into the middle/ creeping/ jumping. All sit quietly in preparation for the second phase.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening, working as a team.

Communication skills : Turn-taking, eye-contact, listening, humour.

Introduce the paper plates. All sitting in a circle. Drop a paper plate from above for each child to catch. Put one hand/foot/finger elbow/knee on the plate. Change to the other side then place two hands etc on the plate. Emphasise vocabulary as the tasks are completed. Manipulative work with hands – scratch/rub/pat/knock on the plates –pick up with two hands/one hand/two fingers/one finger. Look at the difference between the two sides – what else could the plates be? Steering wheels/fans/shoes/hats? Children to sit on the plates and shuffle round the room – into two teams. 1<sup>st</sup> team place all their plates on the floor 2<sup>nd</sup> team turn them over – repeat. 1<sup>st</sup> team make a tower in the middle – 2<sup>nd</sup> team spread them out again – repeat. Focus on number bonds up to 5 or 10. Choose combination of children to put their plates in the middle –watch carefully and emphasise vocabulary. 'Free-play' component. Sit quietly in preparation for the third phase.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

Emphasise decision-making – on what basis are decisions made. Satisfaction with their work –praise. Emphasise vocabulary – 'we have two red pens and one black one – let's put all the tops on the glue – don't leave anything on the floor. 'Reflecting' component.



## **SESSION 9**

### **THEME : TIME**

#### **Phase 1 : 'Movement'**

Music : Disney classics

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening.

All hold hands in a circle. Repeat the movement sequence from session 7 but concentrate on accuracy and precision in movement. Emphasise 'time' vocabulary – 'Who can remember what we did last week – what comes next – whose turn is it now? Let's wait for them to finish – How long can we keep going for before we're too puffed? Shall we have a rest for a short time and then see if we really need a longer time? Did it feel different?' Use the movement pattern to explore 'time' concepts and anchor the vocabulary to specific actions.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening, working as a team.

Communication skills : Turn-taking, eye-contact, listening, humour.

Introduce the balloons. Each child to have a half-inflated balloon – their own choice of colour. Try to keep the balloon off the floor for as long as possible with different parts of the body – which gives the best chance of the longest time for the balloon to stay in the air? Adults to take three balloons of different sizes. Stand on a chair and watch each one fall to the floor – is there a difference in the time it takes? Explore this further and invite the children to use their own balloons to repeat the activity. End this phase by placing a line of chairs down the middle of the room. Split into two groups. Push the balloons under the chair and throw over the top. Try this activity for 30 seconds then 1 minute. Do they notice any difference? **'Free-play' component.** Sit quietly in preparation for the third phase.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine-motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

Emphasise **'reflecting'** component. Encourage children to contribute individually and promote discussion within the group as to the content of the session. Focus on 'time' vocabulary and if possible bring out the books they made in previous weeks. Start introducing the concepts of 'When you go home – what will you do tonight – at school tomorrow – during the weekend – next week.' Check fine-motor skills esp. glue.

## **SESSION 10**

### **THEME : SAME / DIFFERENT**

#### **Phase 1 : 'Movement'**

Music : 'Rock Around the Clock' nursery rhymes.

Curricular skills : Concentration, proprioception, timing and rhythmic competency, information processing, memory, specific vocabulary, listening.

Communication skills : Spatial awareness, touch sensitivity, eye-contact, turn-taking, co-operation, performance, listening, observation.

All hold hands in a circle. Repeat the movement sequence from the previous sessions but lower further the level of adult direction. Can the children perform the sequence to music without adult participation? Use the 'Ring o' Roses' track – all sing – jump together without holding hands – sit down on 'we all fall down' – one child will choose a position to hold that everyone then copies – emphasise that we are all 'making the same position.' Repeat activity until all children have had a turn. Sit quietly and look closely at what the children are wearing – eye and hair colour – what is the same and what is different?

Place chairs in a line down the middle of the room. Children to run around – when the music stops – follow what an adult is doing so they are all doing the same action. Repeat task but when the music stops – each child to choose their own position on the chair. Emphasise same/different. Put chairs to one side and sit in a circle.

#### **Phase 2 : 'Apparatus'**

Curricular skills : Fine-motor coordination, foveal focus, handedness, perseverance, precision and accuracy, decision-making, information processing, specific vocabulary, memory, listening, observation, working as a team.

Communication skills : Turn-taking, eye-contact, listening.

Introduce the duplo (SLI groups). Sort out the bricks into groups of colour. Give the children time to make their own constructions. Compare the constructions – who has done the same/different? Take the constructions apart and make a pile of bricks in the middle. Adult to choose four bricks to make a wall or tower – can the children make exactly the same construction? Repeat. Each child to take four bricks and the group then tries to copy what they choose to make. Emphasise vocabulary as each child completes the task.

Introduce the boxes of assorted objects (Montessori groups). Place four different coloured hoops on the floor with a box in each. As a group with no adult assistance the children will sort the objects into the correct coloured hoops. 'Free-play' component. Sit quietly in preparation for the third phase.

#### **Phase 3 : 'Recording'**

Curricular skills : Decision-making, fine motor coordination, proprioception, pincer-grip, twisting grip, handedness, foveal focus, concentration, perseverance, memory.

Communication skills : Turn-taking and sharing resources, confidence, independence, performance, praise, listening.

Emphasise independence and decision-making. Confidence in ability to complete the task. Showing books to their peer groups in the classroom – what will they say? 'Reflecting' component. What have they remembered of the program? Look at and discuss the 'time-line' on the wall.



THE LANGUAGE UNIT AND THE MONTESSORI NURSERY	INITIAL MOVEMENT PROGRAM  GROUPS L1 and L2 GROUPS M1 and M2	PARTICIPANT-RESEARCHER
<b>THEME</b>	<b>APPARATUS</b>	<b>REPRESENTATION</b>
1. STRENGTH	SOCKS	CROCODILE/DINOSAUR
2. STRETCH	TIGHTS	SWAN/SNAKE
3. BALANCE	PLAYING CARDS	CATERPILLAR/ANTS
4. SHAPE	PAPER BAGS	GLOBE/BALL
5. SOUND	PLASTIC WATER BOTTLES AND ASSORTED SMALL OBJECTS	THUNDERSTORM/WASP TRUMPET
6. PREPOSITIONS	TEDDIES	TREE IN THE JUNGLE
7. SPEED	MATCHBOXES	RUNNERS/ROCKET
8. NUMBER	PAPER PLATES	COMPUTER
9. TIME	BALLOONS	BIG BEN
10. SAME/DIFFERENT	DUPLO/ASSORTED OBJECTS	STAR STICKERS



<b>THE LANGUAGE UNIT</b>	<b>SECONDARY MOVEMENT PROGRAM</b>	<b>NICKY (SLT)</b>
<b>THEME</b>	<b>APPARATUS</b>	<b>REPRESENTATION</b>
1. POSITION	TEDDIES	TEDDIES (IN/ON/UNDER)
2. BALANCE	VIDEO BOXES	BUTTERFLIES/BICYCLE
3. SHAPE	PLAYDO	Circle/Square/Egg/Triangle
4. NUMBER	PLASTIC WATER BOTTLES	5 Green bottles/Numbers
5. SPEED	ORANGES	FIRE ENGINE
6. SOUND	PLASTIC BOTTLES.Assorted small objects.	MOTORBIKE/CAT/ SNAKE
7. SIZE	MAGAZINES	PLANTS GROWING
8. STRETCH	PARTY STREAMERS	SNAKE/LADDER
9. SAME/DIFFERENT	BEAN BAGS	COLOURED SHAPES
10. STRENGTH	SOFT VOLLEY BALLS	GIANTS/TREES

THE MONTESSORI NURSERY	<u>SECONDARY</u> MOVEMENT PROGRAM	KATE (MONTESSORI PRACTITIONER)
<b>THEME</b>	<b>APPARATUS</b>	<b>REPRESENTATION</b>
1. SAME/DIFFERENT	BEAN BAGS	This component was not integrated into Kate's program.
2. GROWING	LONG BLUE NYLON ROPE	
3. SIZE	PLAYDO	
4. STRETCH	TIGHTS	
5. SHAPE	ASSORTED COLOURED PAPER SHAPES	
6. WEIGHT	BALLOONS/TENNIS BALLS.	
7. WEIGHT	FEATHERS/BEAN BAGS	
8. NUMBER	PAPER PLATES	
9. NUMBER	BEAN BAGS	
10. NUMBER	PLASTIC WATER BOTTLES	

## **APPENDIX 9 : FIELD NOTES**

**DATE**

**SETTING**

**Observation schedule to be divided into units of 20 minutes**

**Time from:**

**Time to:**

**Curricular skills**

**Communication skills**

**Staff input- additional information**



**Time from:**

**Time to:**

**Curricular skills**

**Communication skills**

**Staff input – additional information**

## **APPENDIX 10 : VIDEO ANALYSIS**

**Date :**

**Setting:**

**Session No. :**

**Time :**

**Children participating :**

**Absentees and reasons given :**

**Adults attending :**

**General information relating to the children and staff**

<b>Phase 1</b> Time from:      Time to:	<b>Curricular skills</b>	<b>Communication skills</b>
<b>Phase 2</b> Time from :      Time to :		
<b>Phase 3</b> Time from :      Time to :		



## **APPENDIX 10 : VIDEO ANALYSIS**

**Date :** 9<sup>th</sup> May 2002

**Setting:** Language Unit

**Session No. :** Nicky session 1

**Time :** 9.15 am

**Children participating :** Arron/Jack/Nathan/Luke

**Absentees and reasons given :** N/A

**Adults attending :** Nicky/Mrs B

### **General information relating to the children and staff**

Nicky was extremely nervous before the session and we had many conversations regarding the content.....assured her that if she felt it necessary to finish a phase early or she was not confident to complete all three phases then she should do whatever was the best for her and the children. She has reviewed the video data from my sessions and has written notes to help her plan her own program. She gets on very well with Mrs B who also has a more positive relationship with the children than the other staff.

No health problems reported regarding the children – but Nicky says the parents are becoming increasingly anxious over future language provision as the children are leaving the nursery this term. They also know that Ellie is struggling in her reception class and as yet is not receiving adequate help.

Theme for the session is prepositions and they will be using teddies to extend their understanding of the vocabulary.

<p>Phase 1 Time from: 9.15 Time to:9.30am</p> <p>Boys very enthusiastic as they entered the room-immediately started jumping and laughing.. N picked up on their energy level quickly –not too worried re noise.</p>	<p>Curricular skills</p> <p>All held hands without difficulty- no problems with spatial awareness- good rhythmic competency and kept to the beat well. Remembered when to stop and start – and responded to N's questions re their clothes. Concentration level good -</p>	<p>Communication skills</p> <p>Used to being together as a group in the room – so no problems with a small space. Linked hands without prompting – Nathan reminded Luke how to go round in a circle – v sensitive to each other – noticed differences in clothes – and admired Nathans new trainers. Definite improvement in sustaining eye-contact - not interrupting or talking over each other. N relaxing a little and letting them laugh and be noisy. Good positive atmosphere.</p>
<p>Phase 2 Time from : 9.30 Time to :9.40am</p> <p>Children responded well to the teddies –familiar to them.</p>	<p>Nicky heavily reinforcing vocab. – children responded as they were working with the teddies continually and performing manageable tasks. Luke slower but given time and support – much less anxious re getting things 'wrong'.Some difficulty re 'next to' and 'beside.'</p>	<p>Group comfortable with each other – Nathan still finds transition between phases difficult – turning lights off/picking up telephone. He does not affect the others now who let him have 'time out' to re-focus. Level of verbal interaction greater – getting more confident to just chat. Good relationship with both adults – children like them to work alongside not hover over them.</p>
<p>Phase 3 Time from : 9.40 Time to : 9.55am</p> <p>Very quiet and focused atmosphere – children enthusiastic to make their books – no-one refused to engage with the materials. Introduction of library book – v. positive response that surprised Nicky.</p>	<p>Still difficulties with handedness –esp. Luke –needed help with the glue. Level of confidence to make decisions greater- ask for help less from adults – making independent decisions- increased level of accuracy with colour and longer period of concentration. Confident in their verbal response to N's questions re books.</p>	<p>Increased confidence in their verbal interactions and listening skills esp. during N's questioning at the end. All waited their turn for particular colours and the pink glue (Nathan). Communicating well with adults physically and verbally. Generally relaxed and confident.</p>



## **NICKY: FIRST INDEPENDENT SESSION: VIDEO ANALYSIS**

**Curricular skills:** I decided to use teddies as apparatus and focused on prepositions which are a really difficult area for the children. I had changed the working environment for them by bringing back the table and chairs. I also introduced an area of responsibility for them by getting them to do certain tasks that they are not asked to complete in the nursery. I was really pleased that they responded so well to this. They did well with the book from the library and the video evidence really shows that they can manage this material now. They seem to be quite focused and keen to address skills that they find difficult in the nursery.

**Communication skills:** They worked very well together as a group and it's good to see that Luke was given a lot of support by the other boys when he could not find the words to communicate. They are more able now to communicate with each other using body language and humour rather than just being frustrated and angry. They were chatting a lot more between each other, particularly when they were making their books.

## **NICKY: FIFTH INDEPENDENT SESSION**

**Curricular skills:** We were looking at the concept of speed. The children were very confident with the format of the session and were fine being responsible for the room and the materials. They concentrated well and Nathan had a chair that he could sit on if he was unable to manage the activities. I extended the 'reflecting' component and they managed OK. I think they felt good about choosing a shape and having a turn to speak. Some of what they said was indistinct but they all tried and had the courage to speak in front of their friends. I was really pleased at their progress.

**Communication skills:** I think we were all beginning to relax as a group so the talking was getting quite loud. I was getting used to the volume of chatter and interacting with the boys on a different level. They were getting more confident to just speak when they wanted to with each other.

## **NICKY: TENTH INDEPENDENT SESSION**

**Curricular skills:** This was a good session for the boys. We used volley-balls to explore the theme of strength. They were very comfortable in their 'own' space now and have been bringing their friends in regularly. They were managing much better with the materials to make their books and were not asking for my help so much. Particularly Luke who has become more independent and stood up for himself when Arron wanted something he was already using. They concentrated well and reacted to my questions without difficulty.

**Communication skills:** Looking at the video, they have really settled down as a group and it has done them so much good to be together like this. They are much more sensitive to each other now and have a particular bond forged from their difficulties. They can also laugh about things that go wrong and are not so anxious to get everything right.



## **APPENDIX 11 : TRANSCRIPT OF INTERVIEW WITH NICKY POST SESSION 4 OF THE INITIAL MOVEMENT PROGRAM**

Nicky : “You know what I’m really worried about is Nathan not conforming and being allowed to go off into his own little world.”

P-R : “OK – but I think what you have to grasp is the nature of the Medau approach....its not like ballet or gym exercises that have to be repeated perfectly in sequence....and its different from the therapeutic approach in that there is no pre-determined absolute that must be achieved.....he’s not doing it for my benefit to please me.”

Nicky : “Yes I’m beginning to see the difference.....its just hard to accept after so long working in a particular way. I really liked watching the way that Ellie and Jack are so focused at the beginning on the jumping and clapping....”

P-R : “And wasn’t it great to see Luke doing so well....he has retained so much over the weeks.....”

Nicky : “He’s being very difficult at home right now.....I think he feels he has to really assert himself to get anything...”

P-R : “Yes but he really enjoys doing the manual things and although he struggles, he can actually achieve and the others can see him achieving which is terribly important.”

Nicky : “Actually.....Nathan really wanted to do everything this week despite his behaviour.....just thinking about it now....on his terms he did well...”

P-R : “I think he is very wary of trusting adults too much which is why the physical contact with us is so crucial...you know like when he made the ‘pencil’ and touched your nose with it....he was very sensitive not to hurt you.....and matching the right movement dynamic to particular tasks is a skill that these children have to actively learn...it doesn’t just happen for them which is why they often get into a muddle if asked to stroke an animal or pat a baby.....they don’t mean to hurt them...they just get the dynamic all wrong. Did you notice that when Ellie did the same thing to you she was way too close and pushed it in your face.....that’s a good example of what I’m talking about....translate that into a social situation and they get into trouble with their peer group and adults.”

Nicky : “Yes I can see how you highlighted an essential social skill but without going on about it like I do.....its quite a sneaky way of doing it really.”

P-R : “What we try to do in this approach is replicate in movement terms areas that need addressing.....like proximity or getting the dynamic of interactions right.....its not about doing ‘exercises’ related to difficulties.....”

Nicky : “On this subject.....its very interesting that they are beginning to integrate things that we do in the sessions with nursery life.....maybe because its very manageable for them and because we work in a group they feel more comfortable being in a bigger group and can involve the others with our activities.....Nathan keeps trying to get the nursery children to hold hands and go round in a circle with him. Its not always successful but the fact he’s happy to give it a go is fantastic for him. I think these children have always found circle activities in the nursery very threatening as they feel out of control in some way....working in a small group in a circle has given them a lot of confidence that they can manage OK.....”

P-R : “I’ve always thought that working in a circle was very important...it teaches them so many social skills like eye-contact, spatial awareness, turn-taking, sensitivity to the rhythms of others and sequencing.....also you can introduce abstract concepts like shape which we did today in a very immediate and meaningful way.”

Nicky : “Yes that was really interesting for me....the way we would come at a concept like shape would be to take one shape – like a circle- and teach that one concept until we thought it had been grasped and then move on....we would look at things that are and are not that shape.....as long as they have a negative concept you can move it into other areas.....we talk about giving the children a semantic curriculum so the curriculum is totally tailored around that the word the children need to understand and all vocabulary is presented in topics like the weather or clothes.”

P-R : “It’s a very similar approach to the way foreign languages are taught here.”

Nicky : “ The idea is that you are making the links for them.....rather than teaching the words that don’t fit together naturally in a topic.....meaning is accessed through categories.”

P-R : “Yes you work much more from ‘above’.....the teaching is so much more obvious and your role much bigger really....I think my role is much more to facilitate rather than deliberately teach.....I am facilitating them to learn, to develop, to build on the skills they need to become literate, happy ‘together’ people.....to use a rather bad gardening metaphor...I think what I am doing here is preparing the soil as best I can so you can stick your plants in.”

Nicky : “We would look at developing underlying skills – like play skills- but often we are teaching these skills in an explicit way...with the older children we teach them by actually pulling out the rules.....this situation requires this behaviour....how do you not interrupt a conversation.....you have to wait.”

P-R : “We would do it and build in teaching points as the situation unfolds....we would set up a situation within which by the very nature of the task the teaching point would be absorbed. We don’t isolate the skill from the situation. Take the example of swapping the paper bags with their hands which we did today.....the teaching points were learning to



wait for a turn and maintain eye-contact.....in this situation they had to wait and maintain eye-contact or the bags would have fallen to the floor.”

Nicky ; “What we do is definitely isolate the teaching point and then put it back in context.”

P-R : “You’re taking it out...teaching it....then putting it back.....and what we are doing here is setting up learning situations in which the children learn the skill ‘organically.’ Also using apparatus that they aren’t threatened by is a huge help”

Nicky : “Actually it was very interesting this week just thinking about the way you use apparatus.....we were doing ‘long’ this week and I thought about how I could make the concept more meaningful for them....we stretched our bodies out ‘long’ on the floor and then made a ‘long’ path of bricks. The language was not particularly structured but they grasped what the concept was and working together making the path covered a lot of social skills too. The structure of language learning is very important but I am beginning to get how this way of working can support them in a fun and stress-free way.”

P-R : “I know it’s a very different approach but just including it on occasion would be useful for them.....and I hope over the term we will begin to see more clearly how it can support your practice.”



## **APPENDIX 12 : TRANSCRIPT OF INTERVIEW WITH KATE POST SESSION 8 OF THE SECONDARY MOVEMENT PROGRAM**

P-R : “How did you think last term went? I know you were worried.”

Kate : “They were awful children! I just thought, ‘Oh my god’....they did start slowly enjoying what they were doing, but children like Ali and Gaetan who sat out a lot of the time...I don’t know whether they just got older or whatever but they are really good now....Gaetan has sat out only once so far.”

P-R : “One of the big difficulties for me was that they weren’t an homogenous group...not a natural group anyway.....out of ten children there were certain individuals who were always going to do their own thing.”

Kate : “Now there is a huge difference. They don’t exactly work ‘together’ but they’re always doing something with each other....whereas before there was no way. Sophia is still having a bad time simply because the rest of the group are ‘upstairs’ now...but otherwise I’m really pleased.”

P-R : “I thought the main benefits for them were having there social and communication skills developed.”

Kate : “I certainly noticed that in your ten weeks and I’ve noticed some more in mine.”

P-R : “Yes....when they were helping each other and Ali saying, ‘You can put yours on mine.’”

Kate : “We did stretching last week with the tights...it was so funny. We had them on our heads and tied all the legs together. They were all saying, ‘You’re tied to me’...it was great....I really enjoyed it. As for their physical capabilities.....I don’t know if its just because we’re in a bigger room, or they’re just getting older, but they can do everything now. I try not to show them now.....I just try to let them do it.”

P-R : “You mean take the visual cues away?”

Kate : “Yes...so they’re actually internalising what I’m saying. I’ve brought it a lot more into the classroom too.....I use it a lot with the class....like ‘put your hands on your head, stand up, turn around once.’”

P-R : “Its very good for those children who don’t have English as their first language.”

Kate : “For my practise I think its really helped.....the fact I had to watch you and then am now doing it myself.....I just use in the classroom now anyway.”

P-R : “So its become quite a natural thing to do?”

**Kate** : “Yes it’s actually very nice....they really enjoy it when I tell them to walk back to their chairs touching different parts of their body.”

**P-R** : “So it’s like an everyday practice?”

**Kate** : “Yes and they have to watch out for where somebody is.....this has really come on hugely.....huge improvement in that through doing bits and pieces. It definitely was started off by you.....considering what you started off with.....I was horrified by some of their behaviour.....whereas now (and I have quite a few of them) they’ve really come together. I remember Ali saying, ‘I’m not picking up those pencils.’ I thought, ‘Oh no.....if you think you’re coming to my class....’

**P-R** : “Also I thought it was good that they produced work that was completely their own...I think Gaetan loved that bit the most.”

**Kate** : “Now ...like one week we had balloons and the next week paper cups for sound.....they all wanted to take them home.....they went back into their classrooms saying, ‘This is mine...look what I’ve got.’ They all seemed to really enjoy it.”

**P-R** : “What I felt about last term was that they had the freedom not to sit at their desks and have all the time they needed to complete their books.”

**Kate** : “They liked that and also the photos that went with them. Some weeks were quite difficult but they just got on with it and did their stickers and colouring.”

**P-R** : “I did find it very tough in the first few weeks because there was nothing to hold them together really.....different classes and different languages....”

**Kate** : “It just shows though because now I will say to Shiaka, Ali or one of my class, ‘Can you go and get William and Marie,’ on a Friday morning and off they go. And Shiaka now walks into Susie’s class and goes, ‘OK, Charlotte, Mathilde, come on.’ I say to them, ‘We are going to Green class to get Yumma,’ and off we go. So actually...you know they have formed some sort of bond.”

**P-R** : “What has really struck me is how much more confident they are at performing on their own...even Gaetan.”

**Kate** : “I have been working on that a lot.....I just make sure that the tasks are manageable and the competitive characters don’t take over.....that they are all given the time and opportunity to contribute. From my point of view the most improvement has been in areas of communication.....they are much more sensitive to each other and help each other more.....and they can chat away quite happily now as you saw in this session.....it’s been really good for them to do this with me.”



## APPENDIX 13 : A PERSONAL STATEMENT

This appendix describes the personal journey involved in a four-year longitudinal action research study. The study evolved almost organically over the previous years as a result of close professional contact with SLTs and Montessori teachers and weekly practical movement sessions with children experiencing both the therapeutic and Montessori curricula. Training days delivered to both groups of professionals had highlighted their difficulties in matching their training and experience to the reality of the settings in which they worked. The language therapists were aware of the gaps in their knowledge and the lack of training they were given to manage pre-school children effectively. They cited many anecdotal stories concerning failed therapy sessions, lack of positive response from the children and a general feeling of inadequacy when dealing with this age group. As the diagnostic tools had become more sensitive and accurate the age range of the children referred to them had become younger, yet their knowledge and skills did not seem to accommodate the mercurial nature and particular behavioural difficulties of pre-school children with language impairment. The Montessori teachers were already marginalised due to their training and felt unable or unwilling to deviate from the strict guidelines they were expected to follow. They commented that their training had not equipped them adequately to adhere to the specifics of the Montessori curriculum under less than perfect conditions. In both cases their professional training included no element of movement; it had not even been mentioned as a possible additional learning aid.

Fifteen years' practical experience of delivering movement sessions to children had convinced me that learning through movement provided an essential support to professional practice. If presented in an unthreatening and enabling format, the principles of the Medau teaching method could be integrated with a wide range of professional practice.

The initial year of the study was extremely challenging for two reasons. First, I had little experience of academic writing and second, my computer skills were somewhat rusty and would need upgrading. Practically there were few concerns: finding suitable participants and settings was not problematic to arrange and professional support was readily offered. I spent a significant amount of time during this year acquainting myself with the academic genre of writing. This was difficult for someone used to strict word-counts, minimal editing, lots of pictures and many exclamation marks. Some of the articles and journals I read were challenging



to access at this stage. The genre of language adopted sometimes masked what the authors really wanted to say and a lack of awareness of the practical implications of their studies was prevalent. Gradually however the fog lifted and I began to see a way forward. Possible methodologies were analysed and discussed. This was quite definitely not to be a quantitative study, but the difficulties flagged up by critics of qualitative studies seemed to affect the confidence of this group of researchers that their work was valid and their evidence reliable. I decided that the action- research approach, with its roots in improvement of practice and the four-stage cycle it advocates, was a suitable match for the study I proposed. It would accommodate the range of data, the active participation of professionals and their future independent delivery of the movement program. It would also serve to support the critical process on a weekly basis by which the development of the children's curricular and communication skills could be measured.

The initial 'on site' meetings in both settings confirmed what had become evident throughout the years of delivering training days and ongoing conversations with practitioners in both fields. Nicky was struggling in her work setting with the conflicting demands of therapeutic practice, parental concerns and the behavioural requirements of the nursery. Areas of responsibility were undefined and her morale was low. Relationships with the nursery staff were strained and accommodating the different diagnoses from other professional bodies caused her frustration and anguish. She was very emotionally involved with the SLI children and concerned that she should be 'doing far more.'

Kate's situation was different. When we first met she was a classroom assistant in the Montessori nursery but had accepted the job as a reception teacher the following year. The Headteacher of the nursery suggested that as she was joining the upper school she would be well-placed to deliver the program independently. The teachers of the four nursery classes were obviously struggling. They felt cut adrift from the main school, unsupported by the parents, and financial constraints made the replacement of expensive Montessori materials extremely difficult. The lack of a language support system was problematic and the prevalence of children who had not been effectively diagnosed with learning and/or language difficulties led to conflict with the governors. Time had to be spent reassuring them of my intentions, of their vital role in the study and the ongoing support they would be offered to minimise any problems.

Evidence from both settings was critical to the development of the IAP and the movement program itself. The development of the assessment procedure required a significant volume of reading, conversations and discussions with fellow professionals. Evaluating the range of assessment procedures available to professionals highlighted the complexity and diversity of agendas that need to be accommodated by professionals and parents. The financial and political implications of these procedures was unexpected and the 'hard sell' employed by a minority of organisations I contacted for information was distressing. However, the evidence provided by the Weikarts regarding rhythmic awareness and competency and Shweinhart's work on the relationship between gross-motor skills and learning was a revelation. Both areas of research directly affected the formation of the IAP.

I decided not to try out the procedure on other groups of children prior to the program itself as it was specific to the chosen groups and this particular study. The problem of replicability may have been positively affected had I done so, but it was critical that the procedure remained related to pre-intervention evidence gained from the two specific settings only and the Medau movement program that was subsequently delivered.

For Nicky the IAP was an 'eye-opening' experience. She had never previously worked alongside the children and completed the same tasks or been with them when she wasn't in control of the session. The absence of specific language acquisition targets and standard therapeutic oral exercises was foreign to her, and reassuring her that the children would behave as expected in their on-going individual therapy sessions was necessary but time-consuming. Kate was not surprised by the scores of the Montessori children but deeply concerned that the random choice of children I had proposed had not actually happened. Group M1 seemed to include all the children whom the teachers had most difficulty managing and from whom they were desperate to have a break. When the process was repeated with Group M2, Patrick was included, and he was well known by the Nursery staff to struggle with the curriculum offered and socially with his peer group.

The IAP confirmed evidence acquired from parents and teachers as to the children's areas of difficulty. It also highlighted the issue of assessment generally and how different procedures affect the nature of learning opportunities offered to children. The procedures experienced by the SLI children were many and varied yet there was minimal cross-referencing between professionals concerned with their welfare. The issue of 'arena



assessment' was never mentioned, 'as we'll never agree anyway.' For the Montessori children, the absence of effective assessment procedures resulted in a range of practical difficulties for the teachers that they were unable to resolve without significant support from other disciplines – support that could only be accessed with parental agreement.

The significance of the IAP lies in the range of competencies assessed and its relationship to evidence gained from sources closest to the children. Practically, the time taken and the absence of specialist equipment made the procedure itself easy to deliver. Videotaping each child was also an important feature and became the initial phase of the mentoring process experienced by Nicky and Kate. They immediately became closely involved with the purpose of the study as they viewed the evidence and added insightful feedback with the benefit of their own professional training and experience. Lucy's input at this point was also critical. She provided invaluable insight to me from an SLT angle and helped Nicky develop a greater awareness as to the purpose of the study. At this point the action -research cycle proved to be the most effective approach to gaining data for the project, and ensuring that each stage was informed by the one before.

Personally, being part of a small team was a new and invigorating experience. Working collaboratively gave me enormous confidence that the support necessary to ensure the practical component of the study would be safely delivered was adequate. The program started in the Language Unit in January 2001. Nicky had experienced a very stressful term previously managing the demanding behaviour of the Headteacher and the continual anxiety she felt that her involvement in the children's development could be more effective. Lucy had commented on her high level of emotional involvement with the children and the possibility that this was adversely affecting her clinical practice. She felt that Nicky needed to 'lighten up a bit' and engage with the children on a less emotionally taxing level.

The ten practical sessions of the program were for me the most enjoyable element of the study. They were very carefully planned and concerns highlighted during the pilot sessions were addressed without difficulty. Training days with the Blythes at the INPP centre had highlighted the importance of their work on primary sensory-motor reflexes but it has always been difficult to integrate their principles with the Medau approach. Their approach is singular, graduated, and non-holistic in nature yet they provide a body of evidence to suggest its'



effectiveness in ameliorating significant learning difficulties. I am still wondering how their work may be put to greater effect within a movement program that involves children from a younger age group.

The three interlinked phases proved to be a successful structure. Plenty of video evidence was acquired and Nicky formed a closer relationship with the parents, who remained interested and supportive throughout. Over the weeks her relationship with the Head teacher and staff also improved to an unexpected degree. She had invited them to join in the sessions and they had subsequently discussed the children's progress together. The mentoring stage of Nicky's training was a new experience for both of us. Whilst I had years of experience training teachers, the courses I had delivered only involved between two to six days and minimal follow-up strategies were incorporated relating to the integration of Medau principles with professional practice.

It was very important that Nicky was not threatened or undermined by a manner of interacting and working with the children that she had neither witnessed nor experienced previously. Temperamentally she was very quiet and intense, focused and highly organised but easily affected by criticism or any negative feedback from the parents or Lucy. She questioned and analysed everything the children did, but her probing and 'need-to-know' attitude was beneficial to us both. We each had to admit to gaps in our knowledge and the elements of the therapeutic and Medau approaches that were difficult for both of us to access. The rigidity of therapeutic guidelines and the absence of opportunities to question their efficacy was difficult for me to comprehend. The political framework within which Nicky worked and the constant concerns over funding were areas that had previously not been relevant to my professional life. In contrast, Nicky found the flexibility of the Medau method and the relative lack of 'rules' disconcerting and 'dangerous'. Having had the time and opportunity to read widely and discuss with fellow practitioners the difficulties of integrating the movement approach to learning with other disciplines, the mentoring stage of Nicky's training was a critical element in the progress of the study. Her continual refrain of, 'Why exactly did we do that?' made me much more analytical and adept at justifying the inclusion of certain activities. I felt she was well mentored throughout this stage, and with Lucy's continuing professional input she delivered her ten sessions successfully. The absence of specific language targets to be achieved by the children made her more relaxed and aware of the wider range of skills that make up language development. She decided during this time to begin a play-therapy course, and this added another critical facet to her professional development. She was able to analyse the skills necessary to deliver play

therapy sessions and compare and contrast these to those required in the Medau and therapeutic approaches. I was delighted that she was able to absorb the principles of the Medau method so well and use them effectively without changing her basic nature or just 'going through the motions' because Lucy had told her to and any future promotion may have been affected.

While Nicky was delivering her ten sessions the study moved to the Montessori setting. The IAP was more challenging to organise due to the numbers of children involved and coordinating the four class teachers. The Headteacher of the nursery had left the previous term leaving no individual with sole responsibility for the daily running of the classes. Pre-intervention evidence was difficult to obtain from the parents, and the teachers seemed to have enough to worry about without accommodating yet more demands on their time and goodwill. In this setting general organisation of the sessions was challenging and time-consuming. Often I would arrive to find participating children ready to go home, which would result in hasty telephone calls or difficult conversations with parents who had already planned play dates. Kate's classroom assistant was not sufficiently experienced and acutely anxious at being left alone while Kate joined the sessions. There was also pressure on Kate to justify the time she spent on the movement program to the Headmaster of the main school who, as a musician, felt her time would be better spent rehearsing for concerts and school plays.

For me this was the more stressful setting in which to work. The Montessori principles of choice and self-direction caused significant problems during the program. The nursery curriculum also emphasised the gulf between the learning principles that Montessori herself had developed through many years of teaching and observing children, and the ways in which these were implemented in school settings. Montessori emphasised the importance of movement as an integral element of children's overall development. This seems to have been completely overlooked in the current training of Montessori practitioners and to have been reduced to the 'exercises' relating to 'practical life' in classroom settings. Montessori principles were left to individuals to select and implement and the 'seamless learning' she advocated was not evident. The principle of 'choice' in this setting seemed to be a useful means by which calm could be guaranteed and the accommodation of children with undiagnosed learning difficulties ensured.



Practically, the Montessori nursery teachers were too busy to discuss at length the children's progress throughout the program and I felt guilty at demanding so much time and support from Kate. She, however, was very positive and enthusiastic. As a personality she was less intense than Nicky, more ebullient and determined to gain what she could from the experience. She had already secured a new job as Headmistress of a nursery on the West Coast of Ireland and was looking forward to the freedom this position would allow.

Working with Kate was a very different experience from Nicky, who had written copious notes and analysed everything. Kate was more able to enjoy the experience of working with the children and was less concerned about the honest feedback I needed relating to the effect of the program on her professional development. She started integrating some of the principles of the Medau method on a regular basis in her classroom early on in the program, and had the confidence to repeat activities even if initially they failed to engender the expected reaction from the children. For Kate the opportunity to be critical of the Montessori method without censure was a positive element in her experience of the mentoring process. She developed an awareness of the relationship between the principles Montessori herself had proposed and those of the Medau method, particularly in the use of the environment, movement and the concept of 'seamless learning', or, transference of skills. The veil of silence she was used to concerning the implementation of the Montessori approach in the nursery she believed had resulted in a breakdown of dialogue between the staff and a lack of critical analysis concerning daily classroom practice.

Kate's delivery of the program was less well organised than Nicky's but it suited the setting and the children involved. I was very disappointed that she did not include a musical element in her sessions that had been a critical component of the initial program, but I had to allow her the opportunity to use the skills acquired in a way that best suited her personality, level of ability and purpose. She chose only seven themes, and these were linked closely to classroom practice, hence her repetition of the 'number' theme. It was interesting for me to note that despite the absence of music and rhythm she adhered closely to the Medau principles of group work, teaching on a theme, use of the immediate environment and the inclusion of hand apparatus throughout her program. Kate also required a lower level of coaching than Nicky. The confidence she had in her teaching ability and her determination to deliver the sessions on her terms made her less demanding of my support and much more sure of her material.



I greatly missed having a 'Lucy' character in the Montessori setting to provide critical insight into Montessori practice. I knew from previous experience how sensitive Montessori practitioners were to criticism or debate, and after an initial attempt at discussion with two respected Montessori trainers decided this would not be a productive or positive experience for any of us. There is much in the Montessori approach that I find difficult to accept, particularly the issues of order and choice, yet their refusal to enter into a productive exchange of ideas was a missing link that would have provided an additional component to the study.

The five themes that emerged from the study grew through the implementation of the action- research cycle. The two themes of conflict and the environment were unexpected by me. Conflict emerged from pre-intervention evidence in both settings and began to be resolved through the independent delivery of sessions by Nicky and Kate. I had been made aware of the presence of conflict through previous training sessions, conversations with professionals and articles in professional journals. However, I had no direct experience or evidence of the exact nature or level of conflict in work situations and the ways in which it had a negative effect on relationships and the delivery of good practice. For Nicky and Kate the opportunity to be brutally honest about this was a relief, and the experience of working alongside an 'outsider' for an extended period of time allowed them to evaluate critically different areas of conflict and how these affected their practice. I had not appreciated previously the extent of their difficulties and I became much more sensitive to the reality of their situations. Conversations with both professionals turned continually to this theme and became a significant element in the mentoring/coaching process.

Use of the environment was also an unexpected yet significant theme to emerge from the data. To me the 'immediate environment' was a completely natural teaching aid and, although I had previous experience of negative reaction by professionals to its use, I had not appreciated the importance of the environment generally to relationships and teaching practice that pre-intervention evidence subsequently suggested. The difference in relationships between adults and children indoors and outdoors and the lack of engagement with surroundings became a significant theme. It became clear that the 'immediate environment' as an inexpensive, creating learning aid had been overlooked and unappreciated. During their independent delivery of sessions I was pleased that Nicky and Kate used the environment so effectively. Nicky's sensitivity to the children's

'ownership' of their environment and Kate's use of the setting to extend the children's understanding of concepts demonstrated the flexibility of the Medau teaching method and the adaptability of its underlying principles to support diverse professional practice and training.

Direction was a theme that emerged later in the study. Through relevant literature I knew of the Montessori emphasis on order but had not fully considered the level of control and direction present within the materials themselves and how this affected the children's learning. Also, I was aware of the strict guidelines pertaining to standard therapeutic practice but not how the level of direction caused difficulties for both Nicky and the SLI children in the practical delivery of individual therapy sessions. Initially I was bewildered by the lack of sensitivity shown by Nicky and Kate as to the level of direction they exerted and the frequent refusal by the SLI children to respond positively to activities. The varying levels of direction experienced by the SLI children throughout the day was confusing for them and their difficulties accommodating these changes were ignored.

For Nicky this theme was the most significant and problematic to resolve. It was evident that the level of direction the children experienced in the ten movement sessions ran counter to her professional experience, training and personality. For me too it was an area of difficulty I had not expected to be significant, and it was a shock to realise that it could be viewed as a potential threat and an undermining of practice. For both of us there had to be compromises. Throughout the mentoring stage many conversations occurred to assist Nicky's practice and allay her fears. She did not deny the benefits to the children of lowering the level of direction but was frightened of losing control. Eventually her confidence grew to a degree that she managed to deliver her ten sessions with an element of freedom and spontaneity not experienced before by her. I felt this change in approach was a significant achievement and profoundly beneficial to her relationships with the children and the development of her professional practice.

Kate's difficulties were quite different. She felt the lack of direction experienced by the Montessori children in the nursery did not equip them to access the curriculum with the reception year. Through her experience of participating in the initial movement program she acknowledged that the Medau approach gave the children a manageable level of direction but also an element of freedom to bring their own personalities to the program. Working within the confines of curriculum guidelines presented its own difficulties but I was surprised at the



ease with which Kate accommodated the different level of direction in the Medau approach and her lack of difficulty implementing this independently. Perhaps being a less intense and focused personality was a factor and her not teaching within the Montessori nursery at the time played a role.

The extent to which the children transferred skills between the environments they experienced was a theme I initially hoped would emerge from the study, but did not foresee the ways in which it would occur. Previous projects I had been involved with suggested that the children would become more confident or relate their experiences to their parents. I was not prepared for the volume of evidence acquired from the SLI setting that related to the children's transfer of specific phrases and activities from the sessions. Had I been more aware of the possibilities of this theme earlier in the study the parents may have become more involved and been a more powerful element in their children's language development. This is a definite area to be explored and discussed in the future, particularly with the SLI children. The low level of evidence gained from the Montessori parents was expected but disappointing nonetheless. Maybe I should have been more persistent, but I was very aware of the fragile relationship that existed between them and the nursery staff and could not risk jeopardising the situation and causing more difficulties.

Communication was the theme that emerged as central to the study. I had not appreciated previously the extent to which the children's play was affected negatively by their level of communication skills. Although the SLI children were provided with adequate resources to develop interactive skills, their low level of verbal ability denied them opportunities both indoors and outdoors to engage productively with their peer groups. The Montessori groups were affected by their low level of fluency in English, the setting provided no facilities to enhance play outdoors and the directives associated with the materials indoors did not accommodate a communicative element.

The children's use of the actions and phrases used throughout the program as a basis for play was unexpected. Previous studies suggested that an outcome of using movement as a primary means to develop fluency in English is the repetition and rehearsal of rhymes and songs but these studies used parents as an integral part of the process. In this study the children used the content of the sessions by themselves and with no adult intervention or support to develop play skills and build relationships with their peers.



What I had also not recognised before the collection of pre-intervention data was the extent to which communication skills affected the children's relationship with curricular materials in both settings. The Montessori emphasis on self-direction and independence resulted in the absence of opportunities for the children to develop their communication skills and significant difficulties engaging with the curriculum further up the school. For the SLI children their low level of communication skills also denied them opportunities to access the activities offered in the nursery. The significant development in the children's communication skills led to a greater engagement by the participating children in curricular activities. Nicky and Kate acknowledged that the teaching principles of the Medau method and the structure of the sessions had led directly to this development.

The opportunity to evaluate critically the implementation of Medau teaching principles throughout the initial and secondary movement programs was a unique experience for me. A significant criticism of the method has always been that it is 'difficult to teach' and not mechanistic enough to support diverse professional practices. However, working collaboratively with Nicky and Kate revealed the strengths of a method that supports professional practice and builds on the skills already acquired by practitioners. The 'change in practice' required by the action- research approach became evident in Nicky and Kate's independent delivery of the program. They both used the principles that suited their needs and demonstrated the inherent flexibility of a teaching method that seeks to support, enhance and extend professional practice. In two very different settings with professionals whose training could not have been more diverse, the subtlety of the Medau approach to learning demonstrated that it may be used as an additional aid to the development of language skills. In future the method may be applied to a range of therapeutic and teaching practices and to a variety of age groups. The mentoring/coaching process, although demanding, demonstrated that to engender a change in thought processes requires patience, time, sensitivity and goodwill on both sides. For me at the close of the study I feel that the Medau teaching method has strong links with the thrust of modern pedagogy and that the fundamental principles withstood critical analysis and individual implementation. Participating in a lengthy project was of benefit both intellectually and emotionally, and I feel that the method may now be justified as an additional support to the development of young children's language skills.