

PROMOTION OF INCLUSIVE EDUCATION BY THE LEARNING  
SUPPORT TEACHER CONCERNING FOUNDATION PHASE  
NUMERACY AND LITERACY IN GAUTENG INDEPENDENT SCHOOLS

by

**Lynette Claire Yorke**

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SUPERVISOR: PROFESSOR D. KRÜGER

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Student Number: 32844271

### **DECLARATION**

I declare that 'PROMOTION OF INCLUSIVE EDUCATION BY THE LEARNING SUPPORT TEACHER CONCERNING FOUNDATION PHASE NUMERACY AND LITERACY IN GAUTENG INDEPENDENT SCHOOLS' is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete reference.

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SIGNATURE

(Mrs L C Yorke)

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DATE

## **SUMMARY**

Inclusion of learners with diverse needs implies a shift from a medical deficit model to a social systems model. The latter does not view the learner as a problem; instead it considers the environment or society's response to the individual as barriers to learning. This study focuses on collaborative co-teaching as a key to inclusion. Collaborative co-teaching requires the learning support teacher and the general education teacher to partner in all aspects of instruction. The outcome of collaborative co-teaching includes effective instruction, a cohesive, accepting class community, positive learner development and the professional and personal growth of the learning support teacher and the general education teacher. A literature review provided the background to an empirical inquiry using a qualitative approach. Data was collected from a small sample by interviews, observations and documents and inductively analysed. Recommendations for the improvement of practice were made based on the findings.

## **KEY WORDS**

Inclusion, Barriers to learning, Collaborative co-teaching, Foundation phase, Independent schools, Learning support.

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# CHAPTER 1

## INTRODUCTORY ORIENTATION, STATEMENT OF THE PROBLEM, AIM OF THE STUDY AND CLARIFICATION OF CONCEPTS

### 1.1 INTRODUCTION

#### **Outwitted**

He drew a circle that shut me out  
Heretic, rebel a thing to flout  
But Love and I had the wit to win:  
We drew a circle that took him in.

Edwin Markham

Sapon-Shevin (2007:239) refers to inclusion in education in terms of widening circles. Edwin Markham's poem, presented above, encapsulates the essence of widening circles and the embracing of diversity instead of the elimination of differences. This forms the bedrock of inclusion practices.

Inclusion is currently a worldwide phenomenon. The United Nations Educational Scientific and Cultural Organization (UNESCO 2005) views inclusion as the dynamic process of addressing and responding to the diversity of needs of all learners and of seeing individual differences not as problems but as opportunities for enriching learning. It involves changes and modifications in content, approaches, structures and strategies with a common vision which covers all children of the appropriate age range. It includes the conviction that it is the responsibility of the regular education system to educate all children.

The Constitution of the Republic of South Africa Act 108 of 1996 together with the Education White Paper 6 of 2001 and the South African Schools Act 84 of 1996 recognise diversity and the provision of quality education for all learners within a single system of education. These policies and laws provide a framework for and are the first steps towards inclusive education within a single system of education (Donald, Lazarus & Lolwana 1997:20).

Looking at education through an inclusion lens has many implications. In order to include learners with diverse needs successfully a transformative shift from a medical deficit model of disability to a social systems model is necessary. This indicates a move from viewing the child as a problem to considering the education system as a barrier to learning unless it embraces inclusive approaches. Adopting a collaborative co-teaching model for inclusion, whereby the learning support teacher and the general education teacher work together, share instructional responsibility and reconceptualise instructional methods to ensure that every learner receives quality appropriate education, is a means of promoting inclusion.

The vision of inclusive education extends far beyond issues of learning support teachers and narrow reform aimed at those experiencing barriers to learning. However, learning support teachers are important cogs in the wheel of inclusion and may be charged with the moral purpose of creating classroom and school communities in which diversity is celebrated (Jorgensen 2006a:69).

## **1.2 BACKGROUND TO THE PROBLEM**

There is a global trend towards inclusive education. The Salamanca Statement of 1994 is the key document in guiding inclusive movements and social justice internationally. The Salamanca Statement is underpinned by the following principles: every child has a fundamental right to education; all children are unique; and consequently education should be designed to take into account diverse characteristics and needs. The Salamanca Statement and Framework for Action (UNESCO 1994) further asserts that regular schools with an inclusive orientation are the most effective means of combating discriminatory attitudes, building an inclusive society and achieving education for all.

The international movement towards inclusion has not been ignored in South Africa. The notion of inclusion is deeply rooted in the philosophy of *ubuntu* which emphasises the interdependence between people and is embodied by the principle “I am because we are”. *Ubuntu* challenges an individual focused ethos and, within an education context, this implies that support should be rendered to systems such as groups of learners with a view to improving whole school functioning.

The South African Constitution endorses inclusive education by upholding and enshrining the fundamental principles of human dignity, equality and the advancement of human rights. It provides a basis for curriculum change and development in South African education and aims at improving the quality of life of all citizens and freeing the potential of each person.

The Education White Paper 6 (Department of Education 2001) and the South African Schools Act have created the necessary basis in policy and legislation to facilitate a paradigm shift to inclusive education. In the South African Schools Act, access for all learners to a public school of their parents' choice was legislated (Swart & Pettipher 2005:16). The importance of inclusion in the South African education system was underscored in 1996 when the Department of National Education in South Africa commissioned the National Commission on Special Needs Education and Training (NCSNET) and the National Committee on Education Support Services (NCESS) to look into aspects on special needs and support services in education and training. The NCSNET/NCESS (1997:55) concluded that the separate systems of education which presently exist (special and ordinary) should be integrated into a single system which is able to recognise and respond to the diverse needs of the learner population.

Although there have been recent legislative and education policy changes in South Africa which provide a framework for inclusive education, the implementation of these plans are fraught with difficulties. Wildeman and Nomdo (2007:30) suggest that funding deprivation, lack of planning and a dearth of adequate resources are important reasons for the delay and non-implementation of inclusion policies in public schools.

The emphasis given to the implementation of inclusive education varies considerably in South Africa. Public schools clearly fall within the ambit of the vision of the Education White Paper 6 (Department of Education 2001). Independent schools pursuing inclusion do so apart from a state mandate or resources (Lockhart Walton 2006:1). Independent schools which are members of the Independent Schools Association of Southern Africa (ISASA) are constrained by the Diversity and Equity Policy of this association. This policy encourages "inclusivity of learners with special education needs, wherever feasible educationally" (ISASA 2002) and is congruent with the international and state drive towards inclusion.

Inclusion at independent schools requires the co-operation of the community and the whole school. It is likely that support systems that have been implemented to cope with diversity may have to be extended or take a special form in order to accommodate all learners. Within this context the learning support teacher may assume a pivotal role. The question can be raised of how a learning support teacher can promote an inclusive model of education.

### **1.2.1 AWARENESS OF THE PROBLEM**

The initial awareness of the problem arose when I attended an informal meeting at an independent school in Johannesburg where guest speaker, Dr Loretta Giorcelli, from Australia argued that the use of the medical deficit model of disability in addressing barriers to learning is contrary to best practice worldwide. The medical deficit model is well entrenched at the school where I am employed and during my interaction with learners, learning support teachers and general education teachers, I questioned the principles and effectiveness of extracting a learner from a general classroom during core lesson time in order for a learning support teacher to address barriers to learning in an individual, isolated manner.

My unease with the medical deficit model was further developed at a meeting for ISASA schools regarding inclusion at independent schools. On this occasion the option of a social systems model became more apparent and the possibilities of embracing diversity were illuminated. The complexities of implementing inclusion were also brought to the fore and the fact that the policy of inclusion implies a paradigm shift not only for education, but for life as a whole was made clear.

### **1.2.2 THE NEED TO CONDUCT RESEARCH**

Inclusion has been extensively explored from an international perspective, but the research base of both inclusive and independent education in South Africa is relatively uncharted. South Africa's unique past and complex current educational milieu cast an individual national slant on inclusive practices within the country rendering it unfeasible to mirror the implementation of inclusion in the South African education system solely on trends and lessons learned abroad. Thus, a need to focus on the actual mechanics and reality of inclusion in South Africa exists and is a core point of departure for this study.

This research is further motivated by the fact that very few existing studies have focused on learning support teachers in independent schools and their possible contribution to an inclusive model of education. This study intends contributing to the knowledge and implementation of inclusive education within independent schools. In doing so it hopes to engender greater awareness of the potential for learning support teachers to embrace inclusion.

### **1.2.3 EXPLORATION OF THE RESEARCH FIELD**

#### **1.2.3.1 Pilot study**

I conducted a pilot study at an independent preparatory school for boys in Johannesburg to establish learning support and the promotion of inclusion is viable within a general classroom situation. I worked in the capacity of a learning support teacher for Numeracy and Literacy in three Grade 3 general classrooms from January – December 2007. The Head of Department, three general education teachers and 78 boys formed part of the study. The boys were between the ages of eight and nine years. I was scheduled to work in each Grade 3 general classroom for a thirty-minute period of Numeracy and a thirty-minute period of Literacy per week and I attended the general education teachers' weekly forecast and planning meetings. Whilst my time allocation per class was limited, I had initiated a move towards more inclusive practices at the school.

I introduced the collaborative co-teaching model for inclusion with a view to promoting an overarching model of full inclusion. Full inclusion is a major model of inclusion whereby learners with barriers to learning are placed as full participants in the general classroom. Activities are adapted to suit the learners' needs and specialised personnel provide services on an intermittent or continuing basis (Guralnick 2001:10). According to Daack (1999:1-3), collaborative co-teaching is a model for inclusion that involves the general education and special education teachers working together to teach all learners in a shared general classroom. Both teachers are responsible for instruction planning and delivery, student achievement, assessment and discipline. Variations of this model emerged during the Numeracy lessons. Parallel teaching was one of the predominant variations and during these lessons learners were divided into heterogeneous groups. The general education teacher and I presented the same material to each group. The content of the lessons was largely devoted to numerical problem solving exercises.

Problem solving lessons afforded the opportunity for me to introduce a co-operative learning style to the learners which dovetailed with my desire to promote inclusion. At times a variation known as alternative teaching was used whereby one teacher would teach an enrichment lesson or reteach a concept, whilst the other teacher would teach the remainder of the group. Shape and Space work is part of the Numeracy curriculum and it was also covered in heterogeneous groups with the purpose of allowing a different selection of learners to excel.

The support that I offered in the field of Literacy was largely confined to the Teaching Handwriting Reading and Spelling Skills (THRASS) programme. The general education teachers and I chose to organise our collaborative co-teaching in this instance on the interactive approach whereby the class is taught as a whole, but the learners have two teachers to support them. This variation created an opportunity for the general education teachers to become more confident and accustomed to the THRASS programme whilst the learners had the benefit of two teachers who could provide help. After I had given support to the general education teachers and learners for five months, the general education teachers were familiar with THRASS and hereafter we became involved in parallel teaching. During these lessons the academic focus was on increasing phoneme and grapheme awareness which are fundamental skills for reading and writing. In offering this broad based support, it was hoped that learners who found reading and spelling skills challenging would be identified and assisted before there was a negative impact on their academic progress and self-esteem. The endeavour was also intended to heighten tolerance and acceptance of all learners. An opportunity was created for teachers to work collaboratively and in doing so maximise the strengths of the staff.

The collaborative co-teaching model for inclusion was well received by the Head of Department, general education teachers and learners. The success of the pilot study was highlighted by an invitation from the school to increase the hours of support rendered to the Grade 3 classes in 2008 and to introduce the model to two additional Grade 3 classes. The positive potential of the model was further endorsed by the appointment of an additional learning support teacher who was tasked to implement this model for inclusion in Grade 1 and Grade 2.

### 1.2.3.2 Literature study

The review of literature that is pertinent to this study has been structured according to two sections with related subsections.

- Implementation of learning support within a general classroom setting
  - A paradigm shift from a medical deficit model to a social model
  - Models of inclusion
  - Collaborative co-teaching model for inclusion
  - Challenges and advantages of the collaborative co-teaching model for inclusion
- Support for learners with problems in Numeracy and Literacy
  - The importance of Numeracy and Literacy
  - A supportive learning environment
  - Support for the learner as an individual
  - Instructional support for the learner
  - Curriculum support for the learner
  - Systemic support for the learner

#### *a. Implementation of learning support within a general classroom setting*

##### *i. A paradigm shift from a medical deficit model to a social systems model*

Swart and Pettipher (2005:5) note that the movement towards inclusion has led to a radical shift from a medical deficit or within-child model to a social systems model. The medical deficit model is ultimately a model of diagnosis and treatment and the origin of difference is looked for within the learner. The medical deficit model has the potential to categorise and label learners in terms of overemphasis of impairments and problem areas (Bouwer 2005:47). Providing support in conjunction with a medical deficit model has typically been an individual activity, performed alone behind closed doors (Sands, Kozleski & French 2000:127).

Hay (2003:136) found that the social systems model, which is in line with inclusive practices, moved away from focusing on the intrinsic problems of a learner to a broader assessment of all systems impacting on barriers to learning. This implies that barriers to learning may be caused by a system that is unable to meet or adapt to the needs of a specific learner. Inclusive education requires a restructuring of how services are delivered to learners and a focused effort for “push-in” rather than “pull-out” services is imperative. The accommodative support is thus brought to learners within their



classroom environment and individual differences are not viewed as problems to be fixed but as opportunities for enriching learning (Lockhart Walton 2006:59-61; Ainscow 1999:181-182; Aefsky 1995:25).

### *ii. Models of Inclusion*

Four major models of inclusion have been identified according to Guralnick (2001:10-11):

- Full: all learners are in the same general classroom.
- Cluster: learners with barriers to learning are placed in a general classroom along with one or more specialised personnel.
- Reverse: typically developing learners are placed in special education settings.
- Social: programmes for learners with and without barriers to learning are largely independent of each other, but interaction occurs for playtime and other less academic parts of the day.

In order to implement and develop a major model of inclusion, models for a building level are necessary. Models for a building level include the consultant model, teaming model and collaborative co-teaching model (Daack 1999:1-3). For the purpose of this study the focus is on the collaborative co-teaching model.

### *iii. Collaborative co-teaching model for inclusion*

A collaborative co-teaching model for inclusion supports learners within the general classroom by combining the content expertise of the general education teacher with the pedagogical skills of the learning support teacher. Ideally these two teachers work together as a smooth team and are not viewed as having discrete responsibilities. Collaborative co-teaching usually occurs at set times and co-teachers perform many tasks jointly including planning and teaching, developing instructional accommodations, monitoring and evaluating students and communicating student progress (Sapon-Shevin 2007:199-200; Smith, Polloway, Patton & Dowdy 2006:48-49; Sands et al. 2000:144; Daack 1999:1-3).

A collaborative team goes through many stages of development. It will begin with the team's formation and initial trust building and ideally it will culminate with a high level of team functioning in which strategies are in place to reflect deeply on its practices and

resolve conflict (Jorgensen 2006b:42). For teams to work collaboratively and productively, they must establish trust, develop common beliefs and attitudes, share information, manage time effectively, become skilled communicators and continue to grow and learn (Fielding-Barnsley 2005:75-76; Sands et al. 2000:134-144).

#### *iv. Challenges and advantages of the collaborative co-teaching model for inclusion*

There are many potential benefits of collaborative co-teaching:

- It presents excellent instructional opportunities as it combines the expertise and resources of the general education teacher with the talents of the special education teacher, rather than requiring them each to develop separate curricula (Smith et al. 2006:451).
- It promotes greater acceptance and valuing of individual differences and facilitates the development of positive social relationships, increases motivation to learn and enhances competence and self-esteem within the learners (Gillies & Boyle 2005:234-259).
- The availability of continual support for learners is advantageous, and it provides an opportunity for the learning support teacher to maintain ongoing continuity within the curriculum and instruction (Walsh & Jones 2004:16).
- It provides a minimum of scheduling problems, continuous and ongoing communication between teachers and a lower learner ratio (Daack 1999:1).
- It facilitates changing the stigma attached to barriers to learning and it increases the possibility of integration of all learners (Avissar 2000:4; Howells 2000:157-160).
- There are benefits for teachers working with the collaborative co-teaching model including an increased sense of collegiality and positivism and the development of new teaching strategies (Lockhart Walton 2006:24).

Challenges in implementing collaborative co-teaching include:

- Finding enough learning support teachers to co-teach may be difficult and the pairing of a general education teacher and a learning support teacher is costly (Sapon-Shevin 2007:152; Walsh & Jones 2004:16).
- The demands of the ensuing questioning of methods of instruction, evaluation and classroom organisation may prove challenging for the general education teacher and the learning support teacher (Avissar 2000:5).

- Learners may not receive the sustained individualised services that they need to address barriers to learning within a general education classroom (Lawton 1999:3).

*b. Support for learners with problems in Numeracy and Literacy*

*i. The importance of Numeracy and Literacy*

For the purpose of this study Numeracy and Literacy are the focal areas of instruction. Being numerically literate enables persons to contribute to and participate with confidence in society. Access to Numeracy is, therefore, a human right in itself (Revised National Curriculum Statement 2002). Numeracy is important for learners in their success at school and to fulfill their potential later as adults. Learning support teachers should thus promote understanding, and develop the learner's confidence in the subject (Lomofsky, Roberts & Mvambi 2007:93; Dednam 2005a:194).

Language and literacy are closely interlinked. Literacy simply defined is the ability to read and write (Lomofsky et al. 2007:79). Language is central to our lives. We communicate and understand our world through language. Language thus shapes our identity and knowledge (Revised National Curriculum Statement 2002). Reading and spelling problems are often a foremost concern for learning support teachers within the field of Literacy. The provision of a solid understanding of phoneme and graphemes on which Literacy skills can be built may be considered a vital dimension of learning support teachers' work as many learners who have difficulty in learning to read are not sensitive to the phonemic sounds of language and words. Support for language problems should start as early as possible in order to limit complexity and other far-reaching implications (Smith et al. 2006:445; Dednam 2005b:139-144; Lerner 1993:357).

*ii. A supportive learning environment*

The psychosocial environment of the school can either act as a barrier to or an opportunity for learning (Lazarus, Daniels & Engelbrecht 2007:48). The learning support teacher in conjunction with the general education teachers are integral in establishing the learning environment and the general classroom needs to provide a safe and supportive atmosphere where all learners are prepared to take risks and learn from their mistakes without being reprimanded or ridiculed (Lomofsky et al. 2007:72; Burden 1999:36-39).

In order to promote a healthy learning environment the learning support teacher may foster social cohesion and the notion of a community within the classroom. Related to cohesion is the general balance of competition versus co-operation. Less competition produces less friction in a class group and consequently greater cohesion. Handling of conflict is an aspect that can also influence the dynamics of cohesion. Adopting a systematic problem solving approach to avoid getting stuck in repeated response patterns may alleviate conflict (Sapon-Shevin 2007:143-150; Jorgensen 2006b:50; Donald et al. 2004:176-194).

Learning support teachers may also have a role to play in enhancing learners' social relationships within the classroom, school and community. They may promote social and relationship development by modeling through their interactions and language usage respect for differences, interdependence and conflict resolution skills (Sapon-Shevin 2007:166; Donald et al. 2004:190).

Psychological or emotional safety is essential for us to thrive. The deep peace we feel because we know that our support and community will not evaporate when we are challenged is what allows us to learn and grow (Sapon-Shevin 2007:29).

### *iii. Support for the learner as an individual*

The attitude of the learning support teacher towards learners has an impact on learners and it is important that the learning support teacher does everything possible to structure learning experiences in the general classroom in a manner that will help learners develop positive perceptions of themselves as individuals and as competent learners. This involves promoting the development of learners' sense of self-awareness, self-esteem, and self-determination and, in addition, they must teach learners' strategies that allow them to become full participants in activities as a culture of democracy cannot be established without participation (Donald et al. 2004:195).

Self-determination is described by Field and Hoffman (1994) in Bauer and Shea (2003:210) as the ability to determine and reach goals based on the foundation of knowing and valuing oneself. To promote the outcome of learner self-determination, learning support teachers should create environments in which learner choice and

decision making are both supported and valued (Jorgensen 2006b:56-58; Sands et al. 2000:29-30).

Learning support teachers may also be instrumental in promoting learners' self-esteem by motivating them to attain realistic goals. Without motivation the best executed instruction programme will not result in the intended outcomes (Sands et al. 2000:356). Motivation and resultant success are powerful tools in breaking the vicious cycle of failure that many learners with barriers to learning experience (Donald et al. 2004:303).

#### *iv. Instructional support for the learner*

Learners experiencing barriers to learning are a heterogeneous group and as such learning support teachers must provide a wide range of adaptations to meet individual needs. Instructional methods that allow flexibility, responsiveness and individualisation are thus key factors in accommodating all learners within the general classroom (Smith et al. 2006:190).

In order for the learning support teacher to determine the instruction needed by learners, an understanding of cognitive development is necessary. Piaget concluded that cognitive growth occurs in a series of invariant and interdependent stages and is based on active engagement and exploration of the physical and social world (Sands et al. 2000:152; Lerner 1993:183). These stages are not fixed age bands and Donald et al. (2004:69) suggest that they should be interpreted in terms of progressive potential rather than in terms of limitations of what the learner can do at that stage. The implications for learning support teachers are that they should strengthen the foundations on which further learning is grounded. Moreover, they need to provide opportunities for learners to experiment and discover things and to question, discuss and reflect on problems (Donald et al. 2004:63-68; Lerner 1993:184-186).

According to Vygotsky knowledge is always in the process of construction and at the centre of Vygotsky's theory is the notion that development takes place through social relationships. Vygotsky's insight into cognitive development has relevance for the learning support teacher and highlights mediation as the engine that drives cognitive development (Donald et al. 2004:69-73). Thus, through the process of mediation the learner may be guided by the learning support teacher to new levels of understanding

and the learning support teachers' role is to set up the learning experience, monitor its progress and mediate it where necessary (Gillies & Boyle 2005:245-248; Donald et al. 2004:114).

The learning support teacher may consider implementing the instructional method of peer instruction whereby learners become resources for one another. For peer instruction to be effective, no one should be permanently stuck in the role of receiving help as there are benefits to both receiving and providing support. Paired reading is an avenue within the field of Literacy that lends itself to peer instruction and problem solving dovetails with peer instruction in Numeracy (Sapon-Shevin 2007:198; Smith et al. 2006:55; Lefrancois 1994:75).

Learning support teachers take part in assessments during instructional periods. Assessment is a critical element of successful inclusion. It is used to identify changes needed in the learners' environment and to determine optimum learning support. Continuous assessment, which is a process of gathering valid and reliable information about the performance of the learners on an ongoing basis, is applicable in the foundation phase. Multiple forms of assessment are needed to enable learners to demonstrate their learning in diverse ways. Observations, demonstrations, role play, constructions, projects, interviews, oral reports, self-assessments and portfolios may provide evidence of learning (Lockhart Walton 2006:94; Bouwer 2005:48; Bauer & Shea 2003:140).

#### *v. Curriculum support for the learner*

Sapon-Shevin (2007:11) is of the opinion that we should create classrooms in which all children see themselves reflected and validated by the curriculum. In order to promote inclusion the curriculum will have to be adapted to suit the learner, rather than have the learner fit the curriculum (Lomofsky et al. 2007:76). To ensure that the curriculum is not a barrier to inclusion, it must be flexible, responsive to learners' strengths and needs, include opportunities for co-operative learning and experiential activities and allow for individualised and authentic learning (Fisher, Sax & Pumpian 2002:14; Sidogi 2001:61; Sands et al. 2000:290-291; Aefsky 1995:61).

Learning support teachers may promote inclusive education through their work on the general curriculum and through involvement in designing and implementing an individualised education programme (IEP) for learners with diverse needs. An IEP is a written commitment for the delivery of services to meet the learner's educational needs. A high quality IEP contains learning goals from the general education curriculum and it specifies the individualized supports and accommodations necessary for learners to achieve their IEP goals (Jorgensen 2006c:151-156; Smith et al. 2006:103-107; Bauer & Shea 2003:30-38; Sands et al. 2000:293).

*vi. Systemic support for the learner*

The process of teaching/learning does not take place in isolation. It needs to be thought of as a dynamic, interactive meeting point, involving both developmental and ecosystemic dimensions (Donald et al. 2004:90). Bronfenbrenner's theory is important with regards to the systemic aspects of inclusion. Bronfenbrenner's model of ecological units describes units or subunits in society which may be conceived as a nested arrangement of concentric structures each embedded within one another. It underscores the importance of understanding and promoting co-operation and collaboration between the most important systems in learners' lives and it emphasises the importance of the family-school relationship (Swart & Phasha 2005:216; Donald et al. 2004:51-58; Sands et al. 2000:79-84; Ainscow 1999:207-208).

### **1.3 DELIMITATION OF RESEARCH FIELD**

This study was delimited to a sample of one Head of Department, four general education teachers, three learning support teachers, and a sample of learners. The Head of Department and the four general education teachers have been formally trained and are in possession of degrees or diplomas in Education. The general education teachers have all had some exposure to inclusive education and the accommodation of learners with barriers to learning and they have experienced learning support offered within Grade 3 general classrooms. The three learning support teachers have formal training and qualifications in Special Needs Education. They do not take part in learning support within the Grade 3 general classrooms, but are involved in individual and group out of class support.

Learning support that is given within the general classroom is not limited to a fixed group of learners. The group configuration varies according to the needs of the learners, the area of learning and the objective of the lesson. With regards to the sample of learners in the empirical inquiry, I chose four data rich learners who have received learning support within a general classroom. A sample of four boys in Grade 3 between the ages of eight and nine years was used.

A limitation of this study is that it focuses only on Grade 3 learners at an independent boys' preparatory school with a religious orientation. Admission is limited to learners with a particular faith background.

#### **1.4 STATEMENT OF THE PROBLEM**

How can the learning support teacher promote the development of an inclusive model of education with regards to Numeracy and Literacy in the foundation phase at independent schools?

#### **1.5 AIMS OF THE STUDY**

##### **1.5.1 PRIMARY AIM**

The primary aim is to promote the development of an inclusive model of education with regards to Numeracy and Literacy in the foundation phase at an independent school.

##### **1.5.2 SPECIFIC AIMS**

###### **1.5.2.1 Research questions**

In the light of the primary aim to determine and explore ways in which a learning support teacher can promote an inclusive model of education within the foundation phase at independent schools, the research questions are formulated as follows:

- How will learning support be implemented in a general classroom setting?
- What support will the learning support teacher provide to learners with Numeracy and Literacy problems?
- What challenges will the learning support teacher encounter in promoting an inclusive model of education?



### **1.5.2.2 Exploration of questions**

The research questions were explored by means of:

- Literature study
- Interviews
- Documents
- Observations

## **1.6 CLARIFICATION OF CONCEPTS**

### **1.6.1 INCLUSION**

According to the Education White Paper 6 (Department of Education 2001:17), inclusion is about supporting all learners, educators and the education system as a whole so that the full range of learning needs can be met. Inclusion focuses on overcoming barriers in the system.

The inclusion of learners with barriers to learning is a dynamic process which is constantly evolving and implies both societal and educational change. Successful inclusion requires a wide array of school-based modifications and it increases the learning options for all learners. Schools need to align their focus with that of a democratic society and should provide an opportunity for children to be members of a society where labels and separation of the whole is not a feature. The focus is thus no longer on the individual learner to fit in, but on the potential of the system to transform so that individual differences amongst learners can be accommodated (Ainscow 1999:181-182).

### **1.6.2 BARRIERS TO LEARNING**

Barriers to learning are defined by Donald et al. (2002:4) as “any factors, either internal or external to the learner, which causes a hindrance or ‘barrier’ to that person’s ability to benefit from schooling”.

According to the Education White Paper 6 ( Department of Education2001:17), a wide range of learning needs may manifest as a result of physical, mental, sensory, neurological and development impairments, psycho-social disturbances, differences in intellectual ability, specific life experiences or socio economic deprivation. The Education

White Paper 6 (Department of Education 2001:18) also identifies the following factors as contributing to barriers to learning:

- Negative attitudes to and stereotyping of differences.
- Inappropriate languages or language of learning and teaching.
- Inappropriate communication.
- Inaccessible and unsafe built environments.
- Inappropriate and inadequate support services.
- Inadequate policies and legislation.
- The non-recognition and non-involvement of parents.
- Inadequately and inappropriately trained education managers and educators.

### **1.6.3 INDEPENDENT SCHOOLS**

The South African Schools Act of 1996 recognises only two categories of schools: public and independent. Public schools are state controlled and independent schools are privately funded and governed. Independent schools' right to exist is further confirmed in terms of Section 29 of the South African Constitution provided they register with the state, do not discriminate on the basis of race, and maintain standards not inferior to those of comparable public institutions.

Independent schooling has a long history in South Africa as some of the first education institutes in the country were missionary schools. Since the advent of democracy in South Africa in 1994 dramatic changes have occurred in the independent school sector. In 1990 there were approximately 550 registered independent schools in the country and the dominant public perception of independent schools at that time was "white, affluent and exclusive". Now there are at least 1 290 independent schools that serve across the full socio-economic spectrum. The Independent Schools Association of Southern Africa (ISASA) is the largest association of independent schools in South Africa and it represents more than 460 independent schools in South Africa, Botswana, Swaziland, Namibia, Angola and Mozambique (Independent Schools Association of Southern Africa 2008:1).

According to Lockhart Walton (2006:53), independent schools are encouraged to be inclusive of learners who experience barriers to learning, but are not compelled to do so.

#### **1.6.4 LEARNING SUPPORT**

Language reflects the social context in which a paradigm is developed. To facilitate the change to inclusion the terminology needs to reflect the vision and contribute to its realisation. Learning support is thus a preferred term to remedial education in as much as remedial education conventionally adheres to the medical deficit model of diagnosis and treatment whilst learning support follows the principles of the social systems model. A refocusing away from the “specialness” of learners and the special form of provisions apparently needed for the removal of stumbling blocks within society have given further impetus to the use of the term learning support (Swart & Pettipher 2005:6-9).

Within an inclusive environment learning support teachers become more integral to the broad educational efforts of the school. They work from the premise that all human beings need support to enable them to learn, develop and succeed; the result is increased opportunities for all learners (Smith et al. 2006:26). Learning support implies enriching the regular education taking place in the classroom and therefore involves rendering a broad spectrum of assistance to achieve the necessary outcomes. A learning support teacher will be involved with the identification, prevention, minimising and removal of barriers to learning (Burden1999: 38).

#### **1.6.5 FOUNDATION PHASE**

The foundation phase is the first phase of the General Education and Training Band. It starts with Grade R the reception year and includes Grades 1, 2 and 3. There are three Learning Programmes in the foundation phase: Literacy, Numeracy and Life Skills. During the foundation phase the focus is on acquisition of primary skills, knowledge and values which forms the bedrock for further learning.

#### **1.6.6 THRASS**

The basis of Teaching Handwriting Reading and Spelling Skills (THRASS) philosophy and methodology was conceived by Alan Davies using the International Phonetic Alphabet. The building blocks of the programme are identified as forty four phonemes (speech sounds) and 120 key graphemes (spelling choices). The phonemes are represented by a picture and a keyword. Each keyword contains a bold key grapheme and is presented on a vowel or consonant THRASS picture chart. The keywords along with their outline pictures are grouped in phoneme boxes. Davies and Ritchie (2003:9)

are of the opinion that THRASS's strength lies in the fact that it tells learners from the outset that one letter can make more than one sound and sometimes more than one letter can combine to make a sound.

## **1.7 RESEARCH DESIGN**

The research was conducted using a qualitative procedure. According to Creswell (1994:145), qualitative research operates from the underlying assumptions that:

- qualitative researchers are primarily concerned with process rather than outcomes or product.
- qualitative researchers are interested in meaning – how people make sense of their lives, experiences and their structures of the world.
- qualitative research involves fieldwork. The researcher physically goes to the people, setting, site or institution to observe or record behaviour in its natural setting.
- the process of qualitative research is inductive in that the researcher builds abstractions, concepts, hypotheses and theories from details.

The research is primarily descriptive in its objective. McMillan and Schumacher (2001:33) consider the purpose of most descriptive research as describing an existing phenomenon and characterising something as it is. There is also an explorative dimension to this research. Exploratory research is usually conducted in new areas of inquiry where there is a lack of basic information. The possible promotion of an inclusive model of education from a learning support teacher's perspective has not yet been extensively researched.

The mode of inquiry was interactive. McMillan and Schumacher (2001:35) define interactive inquiry as an in-depth study using face-to-face techniques to collect data from people in their natural setting. The researcher interprets phenomena in terms of the meaning people bring to them.

The envisaged data collection strategies include: interviews, documents and observations. Data analysis was based on the reduction and interpretation process. Creswell (1994:154) describes this as a process whereby the researcher takes voluminous amounts of information and reduces it to certain patterns, categories, or

themes and then interprets this information by using some schema. A comprehensive literature study was conducted to obtain related information.

Permission to conduct research was secured from the headmaster of the school and the parents whose children participated in the study. The participants were purposefully selected as information rich cases who could contribute significantly towards the study (Patton1990:196).

## **1.8 RESEARCH PLAN**

The dissertation consists of five chapters:

- Chapter 1: Introduction
- Chapter 2: Literature review
- Chapter 3 Research design and methodology
- Chapter 4: Results: presentation and discussions
- Chapter 5: Summary and recommendations

## **1.9 CONCLUSION**

It is important that independent school system in South Africa continues to move towards an inclusive paradigm in order to cater for the needs of all learners. Within the independent school system specific schools are expected to shoulder and embody the spirit of inclusivity. To this end the school as a whole needs to be committed to reducing barriers to learning for all learners and responding positively to diversity. Learning support teachers should be empowered to work as collaborative team members in the implementation of inclusion. The importance of teamwork is illustrated by a short parable entitled “A lesson from the Geese” by Milton Olson. This describes the power of teams in making a difference. As each bird flaps its wings, it creates uplift for the bird following. By flying in a V formation, a flock adds 71% flying range in comparison with a single bird’s solitary flight. Similarly, people who share a common direction and sense of community can reach their goals more quickly and more easily because they are assisted by their mutual efforts (Jorgensen 2006d: 124).

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

"I have come to a frightening conclusion.  
I am the decisive element in the classroom.  
It is my personal approach that creates the climate.  
It is my daily mood that makes the weather.  
As a teacher I possess tremendous power to make a child's life miserable or joyous.  
I can be a tool of torture or an instrument of inspiration.  
I can humiliate or humor, hurt or heal.  
In all situations it is my response that decides whether a crisis  
will be escalated or de-escalated, and a child humanized or  
dehumanized"

Dr Haim Ginott

The above quotation highlights the influence that a teacher may have on a learner. Whilst inclusion is given shape and direction by policies and legislation, individual values, attitudes and beliefs about society, schools and learners are powerful determinants of the extent to which inclusion is embraced. Actions do not always have to be on a grand scale to make a difference. Positive steps towards inclusion can be taken on a classroom-by-classroom and a school-by-school basis and one teacher can have a dramatic effect on the lives of learners who experience barriers to learning (Smith et al. 2006:35).

Support for general education teachers in their increasingly demanding roles in an inclusive setting is vital. Learning support teachers have an important role to play in accommodating all learners effectively and ensuring the integration of learners who experience barriers to learning into the general classroom. If a learning support teacher responds to a learner's behaviour within the framework of inclusive practices, the positive effect of his or her work and interactions may be far reaching.

## **2.2 IMPLEMENTATION OF LEARNING SUPPORT WITHIN A GENERAL CLASSROOM SETTING**

The review of literature that is pertinent to this study has been structured into two sections as mentioned in 1.2.3.2, namely, the above heading and *Support for learners with problems in Numeracy and Literacy*. In this chapter I will elaborate on these two sections and the related subsections already briefly discussed in Chapter1.

### **2.2.1 A PARADIGM SHIFT FROM A MEDICAL DEFICIT MODEL TO A SOCIAL SYSTEMS MODEL**

Both international and national patterns and trends regarding disability have undergone major shifts which have influenced the movement towards inclusive education in South Africa (Naicker 2007:1). Within a South African context the reconstruction of notions of disability and an attempt to found educational policy on principles of social justice and human rights underscore inclusion practices (Dyson & Forlin 2007:38). Swart and Pettipher (2005:5) note that the movement to inclusion has led to a radical shift from the medical deficit model to a social systems approach.

The medical deficit model is ultimately a model of diagnosis and treatment and the origin of difference and deficit is looked for within the learner. Professionals supporting this view tend to follow the “find-what’s-wrong-and-cure-it” paradigm (Swart & Pettipher 2005:5). In the medical deficit model the focus is on learners’ weaknesses. Deficits are identified and then broken down into components or pre-requisite skills and learners are drilled until these skills develop. The medical deficit model has the potential to categorise and label learners in terms of overemphasis of impairments and problem areas (Bouwer 2005:47). Focusing only on deficits ignores holistic instruction and learners’ strengths which may inadvertently cause them to have additional gaps in their overall achievement or to lose current skills (Sands et al. 2000:288).

The medical deficit model framed and determined the roles and actions of teachers. Teacher training qualifications were divided between those which served the needs of “ordinary” learners in general classes and those which focused on providing trainees with “special” skills to teach in specialised settings. Possessing such “specialised” knowledge and skills elevated the teacher to that of expert. This meant that “special teachers” and other professionals were the only knowledgeable ones in assessing,

identifying and treating the disability within the learner. The education support professional's role was therefore seen as indispensable and a "cure" was not possible without the professional's intervention (Swart & Pettipher 2005:5).

The fundamental efficacies of the medical deficit model and its "pull-out programmes" have come into question as has the ethics of such segregatory practices (Hourcade & Bauwens 2001:242). Lockhart Walton (2006:60) raises the question of whose interest the experts' best serve as they diagnose, label and then prescribe the therapy or medication to treat the condition. The medical deficit model is problematic in terms of diagnosis and treatment of learners with learning barriers, in particular, because it suggests that learning disability is a disease entity meeting the following criteria: (a) reliable diagnosis, (b) known cause, (c) known course with and without treatment, and (d) known treatment. If this were the case, we would be able to identify reliably the learning problems and offer appropriate interventions based on the data collected. This is unfortunately not the case and diagnosis and treatment remain unreliable (D'Amato, Crepeau-Hobson, Huang & Geil 2005:98). Ainscow (1999:182) expresses concern that the medical deficit model allows educational difficulties to be explained solely in terms of learner deficits, thus distracting attention from the way schools are organised and the kind of teaching provided.

The movement from a medical deficit model of disability led to the development of more social and ecological theoretical models. The social systems model embodies inclusive practices and involves a refocusing away from the deficits of the learner to the removal of barriers within systems. It involves a fundamental change from the learners having to adjust to "fit into" the systems to the transformation of schools into institutions capable of accommodating and addressing the diverse needs of all learners (Swart & Pettipher 2005:5-8). In line with inclusion practices the social systems model has definite implications for the provision of support to learners experiencing barrier to learning. The emphasis is on structuring "push-in" rather than "pull-out" services (Aefsky 1995:25). The accommodative support is thus brought to learners within their classroom environment rather than being performed alone behind closed doors (Sands et al. 2000:127).

Whilst the medical deficit model is discriminatory and limiting, it is deeply ingrained into the thinking of generations of teachers, parents and professionals. A shift in paradigms



does not necessarily imply an overnight change in practices (Swart & Pettipher 2005:5). The complexity of the move from a medical deficit model to a social systems model is encapsulated in Bothma, Gravett and Swart's (2000:200) statement that the educational policies of inclusion imply a paradigm shift, not only for education, but for life as a whole.

With the growing focus on strength-based perspectives, prevention of barriers is more effectively achieved by building and extending strengths in the individual, than by identifying and fixing their deficits. There has been increasing polarisation of support around the opposing medical deficit and social systems model. I myself support the many theorists who identify the need for balance in this respect and I recognise that the theories are not mutually exclusive, but rather complementary (Naidoo 2006:597; Farmer, Clemmer, Leung, Goforth, Thompson, Keagy & Boucher 2005:58; Clonan, Chafouleas, McDougal & Riley-Tillman 2004:102; Jimerson, Sharkey, Nyborg & Furlong 2004:13; Terjesen, Jacofsky, Froh & DiGiuseppe 2004:163; Seligman & Pawelski 2003:159).

### **2.2.2 MODELS OF INCLUSION**

Four major models of inclusion have been identified and described according to Guralnick (2001:3-35):

- Full inclusion: In this model of inclusion learners experiencing barriers to learning are full participants in the general classroom environment. Learning support teachers and other specialised personnel provide services to the learners on an intermittent or continuing basis. The programme and all of the learners remain the responsibility of the general education teacher. Activities are adapted to suit the learners' needs and IEPs are designed to accommodate diverse learning needs. Ideally learning support is well integrated into the ongoing curriculum.
- Cluster model: The cluster model of inclusion shares many characteristics with the full inclusion model. It is distinguished by the fact that a small number of learners experiencing barriers to learning are essentially grafted onto an existing programme that serves typically developing children, bringing with it their own staff. This cluster of learners is often assigned a separate physical location. In the cluster model the general education teacher is responsible for all learners, and learners with barriers to learning are expected to participate in most, but not all, of the usual programme activities. Some level of separation is inherent in the

- cluster model and the expectation of greater involvement of the learning support teacher with learners with barriers to learning entrenches a level of separation.
- Reverse inclusion: Reverse inclusion differs dramatically from full and cluster inclusion. In reverse inclusion a relatively small group (usually 20%-40%) of typically developing learners is added to a specialised programme. It is generally staffed by “special educators” and often remains true to its “special needs” tradition. Within reverse inclusion model efforts are made to develop activities that include all learners.
  - Social inclusion: The social inclusion model provides the least contact between learners with and without barriers to learning. All learners are housed in the same general location, but programmes for typically developing learners and learners experiencing barriers to learning are maintained in separate spaces with separate staff. Planned social interaction between the two groups usually occurs during free play and other recreational activities.

Sapon-Shevin (2007) in Delisio (2007:2) expressed her unease with partial inclusion as indicted in cluster inclusion and social inclusion. She is of the opinion that proponents of these approaches miss the point of inclusion. This is highlighted by her question, “How can you partly belong? Either you are a full member of your class or you are not.” She prefers to reserve the word “inclusion” for a consistent commitment to fully including all students.

Major models for inclusion form an overarching framework of inclusion. Models for a building level are a means to attaining the goals of a major model of inclusion. They include the consultant model, teaming model and collaborative co-teaching model (Daack 1999:1-3).

- Consultant model: A typical consultant model configuration is a dyad involving a general education teacher and a specialist. The teacher requests assistance from a specialist who has experience perceived as relevant to the particular concern (Walther-Thomas, Korinek, McLaughlin & Williams 2000:162-163). The consultant model offers indirect support as in most cases the consultants do not interact directly with learners instead they interact with the general education teachers who works directly with the learner. The consultant model is compatible

where there is a low incidence of learners experiencing barriers to learning and an overall learner population (Daack 1999:1).

- Teaming model: In a teaming model the learning support teacher is typically assigned to one grade level with one planning period per week for the team. The learning support teacher provides learner information, possible instructional strategies, modification ideas for assignments/tests and behaviour management strategies. This model may be presented so that general education teachers are not working independently to achieve success with their learners. The disadvantages of this model could include possible resistance to implementing the modifications, delayed assistance for learners experiencing barriers to learning, a high learner-teacher ratio and limited opportunities for learning support teachers to work in the general education classroom (Daack 1999:1).
- The collaborative co-teaching model is the third model identified by Daack (1999:2). For the purpose of this study the focus is on the collaborative co-teaching model.

### **2.2.3 COLLABORATIVE CO-TEACHING MODEL FOR INCLUSION**

Collaborative co-teaching in a general classroom provides direct in-class support for learners and is an effective way to provide inclusive instruction to benefit all the learners, both with and without barriers to learning (Fennick 2001:60). In a collaborative co-teaching model the general education teacher and the learning support teacher work together and jointly teach learners in an inclusive environment (Bauer & Shea 2003:86). The general education teacher and the learning support teacher are both responsible for instruction planning and delivery, student achievement, assessments and discipline (Daack 1999:1). The essential philosophy undergirding collaborative co-teaching is that all educators are responsible for the learners (Hourcade & Bauwens 2001:243). Embracing a collaborative co-teaching model for inclusion would mean believing the slogan, “None of us is as smart as all of us” and enacting that belief in all aspects of the curriculum, pedagogy and school organisational structures (Sapon-Shevin 1999:1).

Teacher collaboration within a collaborative co-teaching model is underpinned by the principle that teachers working cooperatively are better prepared to handle the challenges of inclusion and diversity than any one teacher (no matter how good) working in isolation (Sapon-Shevin 1999:116). Collaborative relationships are based on direct

interaction amongst co-equal parties, who voluntarily participate, share responsibility and accountability, make decisions together, grow to trust and respect one another, and begin to move towards more similar value positions (Sands et al. 2000:128). According to Cook and Friend (1993) in Sands et al. (2000:121), the term co-equal parties does not infer that the individuals enter into the relationship holding the same sets of experiences, knowledge, or skills. Rather, it means that they each bring unique perspectives, experiences, knowledge bases, and personal belief systems that hold equal weight and value as they work together. With respect to collaborative co-teaching the content expertise of the general education teacher is combined with the pedagogical skills of the learning support teacher. The power of collaborative teams lies in their capacity to merge unique skills of talented teachers.

The following are characteristics of effective collaborators:

- Effective co-teachers take pride in themselves, possess well-honed professional skills, positive attitudes towards co-teaching and are strongly committed to their personal growth (Walther-Thomas et al. 2000:186). Joyce, Wolfe and Calhoun (1993) are quoted in Sands et al. (2000:143) as of the opinion that collaborative work facilitates lifelong learning through the sharing of ideas and expertise.
- They value their own efforts and provide strong support for the efforts of their colleagues. Co-teaching should not be used for teacher remediation (Walther-Thomas et al. 2000:186).
- They develop common beliefs. Co-teachers believe that learners experiencing barriers to learning have the right to learn with typically developing learners. They assume joint responsibility for all learners in the class and share major responsibilities for planning, delivering and evaluating classroom instruction (Walther-Thomas et al. 2000:186-199). In order to make shared beliefs a reality co-teachers need to set priorities and realistic time expectations (Sands et al. 2000:141-143).
- Effective co-teachers share classroom status, power and authority and they respect and value one another's contributions. Learning support teachers must not be perceived as assistants (Walther-Thomas et al. 2000:186).
- Teacher involved in collaborative co-teaching need to develop effective communication skills (Smith et al. 2006:47). Communication skills are rated by Fielding-Barnsley (2005:1) as a critical skill in collaboration. She raises the

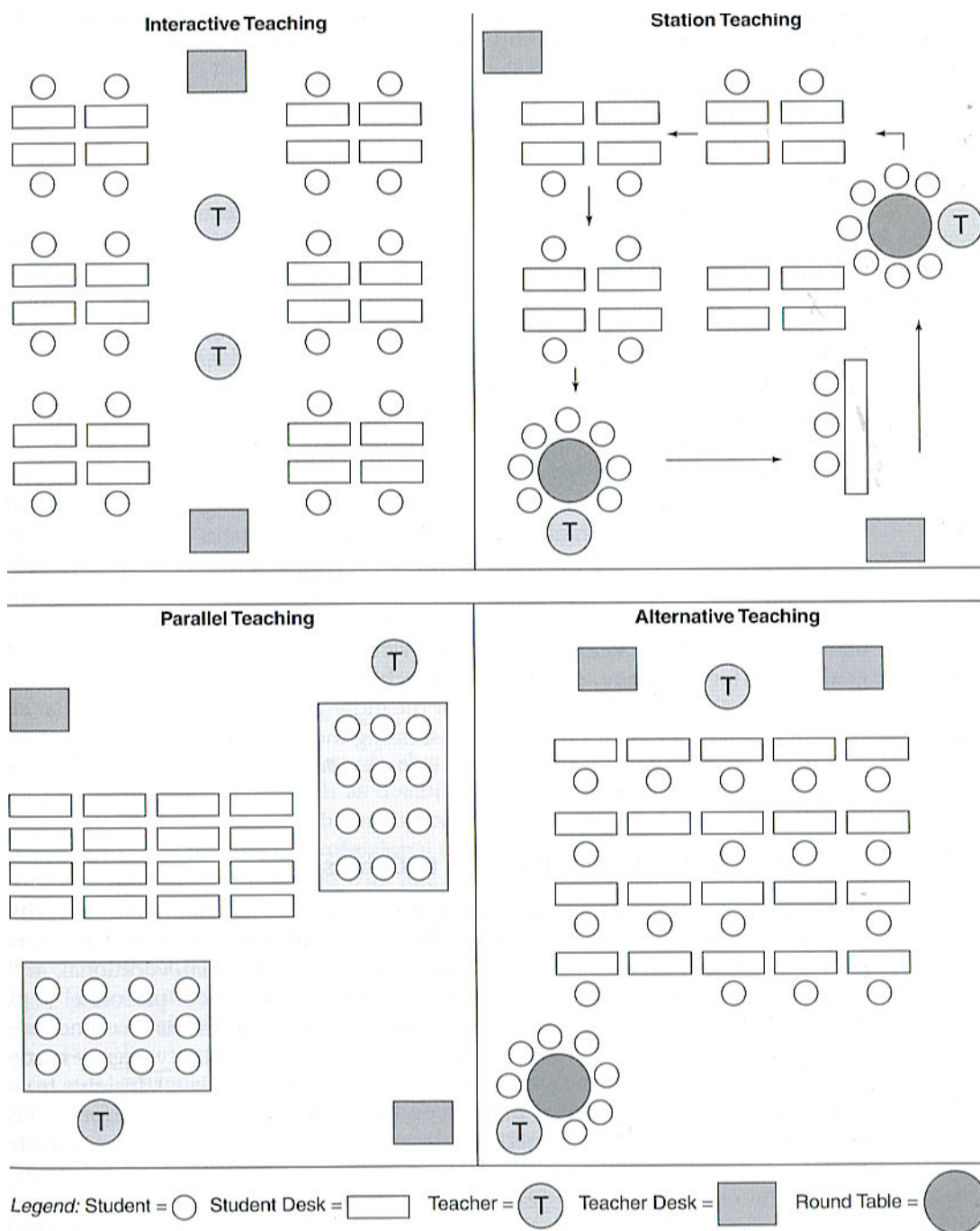
question: “What is the merit of superior knowledge and experience if you are unable to communicate effectively?”

Collaborative co-teaching offers opportunities for general class teachers and learning support teachers to use a variety of large and small group teaching strategies. Four basic collaborative co-teaching format variations exist according to Walther-Thomas et al. (2000:163):

- Interactive teaching: The class is taught as a whole, but the learners have two teachers to ask questions of and from whom they get support (Daack1999:2).Through interactive teaching both partners have opportunities to share the teaching “stage” in the classroom. Interactive teaching is not a simple process of taking turns. Instead it is a dynamic process whereby both partners are actively engaged in the teaching and learning process. Ideally there is a flow of dialogue between teaching partners and partners should develop the skill of reading each other’s cues regarding learners’ understanding and effectiveness of their instruction (Walther-Thomas et al. 2000:189).
- Parallel teaching: Learners are divided into two mixed ability groups which are taught simultaneously by either the general education teacher or the learning support teacher. The same material is taught to each group. In parallel teaching the learner-teacher ratio is low, more time is devoted to learning versus learners waiting for help, opportunities for re-teaching are immediate, there is support for the general education teacher, communication is constant and behaviour problems can be minimised (Daack 1999:2).
- Alternative teaching: In this model there is one big group and one small group of learners. This model enables co-teachers to create small strategically constituted groups to work on specific skills, concepts and projects. One partner teaches an enrichment lesson or re-teaches a concept for the benefit of a small group, while the other partner teaches or monitors the remaining members of the class. Alternative teaching lends itself to extension activities and enrichment projects. It is important to rotate teaching responsibilities so that each partner teaches big and small groups and every learner has multiple opportunities to participate in both types of alternative teaching sessions (Walther-Thomas et al. 2000:190).
- Station teaching: Learners are placed in groups of three or more and they rotate to various teacher-led and independent work stations. Students may work at all

stations during the rotation. It is ideal for teaching subject matter in units with no specific sequence (Daack 1999:2). It is important for teachers to mix the rotating groups regularly to avoid the social stigmatisation of homogeneous grouping (Walther-Thomas et al. 2000:192).

These four co-teaching variations facilitate both innovative co-teaching and effective classroom learning. They provide creative opportunities for new concept instruction, supervised skills practice, review, individualised assistance and progress assessment. Co-teaching teams may develop a preference for a particular variation. They should, however, use all four variations (see Fig 2.1 below) regularly to ensure parity in instructional responsibilities, provide adequate learner support and minimise stereotyping professionals or learners in these classrooms (Walther-Thomas et al. 2000:194-195).



**Fig 2.1: Example of co-taught classroom floor plans**

Source: Walther-Thomas et al. (2000:195)

Collaborative co-teaching is not an exact science. A collaborative co-teaching team goes through several stages of development. Jorgensen (2006b:42) is of the opinion that it

begins with the team's formation and initial trust building and culminates with a high level of team functioning. Even under the best of circumstances, unexpected events require changes of plans and routines. Consequently, although effective partners must be as well prepared as possible and fulfill their commitments to each other, partners must stay open-minded and flexible (Walther-Thomas et al. 2005:208).

#### **2.2.4 CHALLENGES AND ADVANTAGES OF THE COLLABORATIVE CO-TEACHING MODEL FOR INCLUSION**

Collaborative co-teaching may be an effective means by which services are provided in a manner that embraces diversity and inclusive practices. There are numerous benefits of collaborative co-teaching:

- There is great potential instructional power in having two teachers present and actively teaching in the same classroom at the same time (Hourcade & Bauwens 2001:243). It reduces the learner-teacher ratio, facilitates enrichment opportunities and offers absent learners "catch up time" (Walther-Thomas et al. 2000:190).
- Collaborative co-teaching provides teachers with greater opportunities to reach their full potential. Each of the participants in the collaborative co-teaching process benefits from the background knowledge and experience of the other (Sands et al. 2000:128). For the general education teacher collaborative co-teaching provides an opportunity to try out innovations with immediate support of another educator with complementary skills (Hourcade & Bauwens 2001:246). It provides learning support teachers with information and experience about classroom environment demands, teacher's expectations and how learners actually perform in the classroom. This information helps learning support teachers provide more appropriate recommendations for others' instruction and for their own (Gillies & Boyle 2005:16; Bauer & Shea 2003:93).
- Gillies and Boyle (2005:16) found that teachers' interactions in cooperative conditions were designed to foster learning. In cooperative settings where teachers interact with small groups of learners, the language used is more personal, friendly and supportive of their efforts than it is in a whole-class setting where teachers often spent more time directing, lecturing, questioning and disciplining learners. Teachers were verbally interactive and because talk is recognised as a social mode of thinking that assists in the joint construction of



knowledge, these verbal behaviour are important for fostering learning among group members (Gillies & Boyle 2005:247).

- It allows increased flexibility to meet the academic needs of learners. When school professionals co-teach, they have an enhanced ability to fluidly change learner groupings and they are better able to respond to learners' needs (Sands et al. 2000:129).
- It allows learners to interact with a variety of teachers who bring different styles, personalities and skills to the learning environment (Hourcade & Bauwens 2001:247).
- According to Bailey and Wolery (1989) in Gargiulo & Kilgo (2005:175), assessments in a collaborative co-teaching setting are likely to be nondiscriminatory and erroneous placement recommendations are reduced. It also provides an opportunity for effective, systematic observations and review (Walther-Thomas et al. 2000:190).
- Bailey and Wolery (1989) in Gargiulo & Kilgo (2005:175) are of the opinion that more appropriate service plans and intervention goals are generated as a result of collaborative co-teaching.
- Within collaborative co-teaching environments learners experiencing barriers to learning are accommodated primarily within the general classroom. No valuable, instructional time is lost as learners travel to and from their resource room. Learners need not spend time orienting themselves to a new setting where new materials, new instructional strategies, new class rules and new teacher expectations exist. Furthermore, learners do not need to generalise the new skills learned in a pull out resource room to the larger, more complex general education classroom (Walther-Thomas et al. 2000:19).
- The inclusive setting embraced by collaborative co-teaching facilitates changing the stigma attached to barriers to learning and increases the possibility of integration of all learners (Avissar 2000:4; Howells 2000:157-160).

Collaborative co-teaching is not a simple solution to the many problems of accommodating a broad range of learners with barriers to learning. The following disadvantages of collaborative co-teaching have been identified:

- Effective collaboration requires a high degree of cooperation and mutual respect. An obvious difficulty in implementing the collaborative co-teaching model is ensuring the compatibility of the teachers working together. Co-teaching requires individuals who are willing to give up some control and accept positive, constructive criticism from colleagues (Smith et al. 2006:49). The demands of ensuing questioning of methods of instruction, evaluation and classroom organisation may prove challenging for the general education teacher and the learning support teacher (Avisar 2000:5). Logistical and territorial issues must be resolved and concerns about being observed constantly by another professional must also be confronted (Bauer & Shea 2003:92).
- Collaborative co-teaching requires a considerable increase in planning and preparation time (Walther-Thomas et al. 2000:190). Successful co-teaching relies on consensus between co-teachers on routines, procedures, rules, disciplines and grading practices. It takes time to reach agreement in these areas when each of the teachers is used to working in more independent modes (Sands et al. 2000:129).
- Collaborative co-teaching may be job sharing, not learning enrichment (Walther-Thomas et al. 2000:190). Too often when a classroom has several educators present, the general educator talks while the other adult passively listens. It is important to use all teachers efficiently and effectively. True collaboration should result in transformation of curricula and instruction and should not involve the educators simply trying harder to fit learners into pre-existing models (Hourcade & Bauwens 2001:244).
- Walther-Thomas et al. (2000:190) consider the potential ease with which teachers may be “typecast” in specific roles as a challenge of collaborative co-teaching. Co-teachers need to develop a rapport in the classroom so that the learners feel that both teachers are equal. If learners see the learning support teacher as an aide, they tend to accept help from only the general education teacher (Magiera, Smith, Zigmond & Gebauer 2005:22).
- The pairing of a general education teacher and a learning support teacher is financially costly (Sapon-Shevin 2007:152; Walsh & Jones 2004:16).
- Concerns about the learning support teachers’ caseloads were identified by Bauer and Shea (2003:92). Learning support teachers may float among several

classrooms, making the number of learners with barriers to learning with which they work very large.

- A potential disadvantage of collaborative co-teaching is that there may not be sufficient learning support teachers to co-teach in general classrooms. As a result co-taught classrooms may easily become disproportionably filled with learners experiencing barriers to learning (Gillies & Boyle 2005:16).
- The limitations of collaborative co-teaching include the possibility that individual learners may not receive the sustained, intensive support that they may need to address particular barriers to learning (Lockhart Walton 2006:90; Lawton 1999:3).
- Increased noise level could be considered a disadvantage of collaborative co-teaching (Walther-Thomas et al. 2000:190).
- Within a collaborative co-teaching setting it may be easy to select the same low-achieving learners for help and they may feel singled out (Walther-Thomas et al. 2000:190).

Although disadvantages of collaborative co-teaching exist, the positive impact of effective collaborative co-teaching has the potential to embrace the vision of inclusion and provide services in an integrated rather than fragmented fashion (Gargiulo & Kilgo 2005:175).

## **2.3 SUPPORT FOR LEARNERS WITH PROBLEMS IN NUMERACY AND LITERACY**

### **2.3.1 THE IMPORTANCE OF NUMERACY AND LITERACY**

#### **2.3.1.1 Numeracy**

Numeracy and mathematics are used as synonyms in this study since both terms appear interchangeable in the literature. Since the origins of the human race, mathematics has been part of mankind. In the earliest years humans used mathematical concepts for survival purposes. People in the modern world also depend on mathematics to survive, but there is a difference, as these concepts nowadays are not only used for basic survival purposes but also to satisfy higher needs (Dednam 2005a:195). Perry and Conroy (1994) in Dednam (2005a:194) emphasises that no child is able to avoid mathematics just as they cannot avoid language. Both are commodities of human existence.

Mathematics has been called a universal language because it is a language for all cultures and civilizations. As a symbolic language it enables human beings to think about, record and communicate ideas concerning the elements and the relationships of quantity (Lerner 1993:472). Numeracy (mathematics) cannot be separated from the integrated language system. Spoken language forms the basis of reading and writing, which in turn form the basis of mathematics (Lomofsky et al. 2007:90). Poor reading causes difficulties in the reading and construction of word sums and learners may struggle with mathematical processes and word sums as they cannot read and comprehend the text (Dednam 2005a:201).

In co-taught Numeracy classes the general education teacher and the learning support teacher are expected to provide a wider range of instructional alternatives, to enhance the participation of learners with barriers to learning and to improve performance outcomes for all learners. This is only possible if the learning support teacher is an active participant in the instruction of all learners (Magiera et al. 2005:24). The learning support teacher's attitude to Numeracy and learners who are experiencing problems is important. Learning support teachers can develop and promote an attitude of enthusiasm which may help learners to overcome their problems and may encourage them to work harder. The lessons for learners support should be well planned and developed through the phases of revision, explanation, experiencing, discussion, generalisation and implementation to be successful (Dednam 2005a:201-209). Learning support teachers should go beyond monitoring and observing roles and assume an active role in the general classroom. The learning support teacher should vary small-group instruction frequently to allow for more teacher-learner interaction, closer learner monitoring and one-to-one instruction (Magiera et al. 2005:23).

Hammill and Bartel (1995) in (Dednam 2005a:206) identify the following principles for support:

- Use a vast variety of concrete teaching material to give learners opportunities to visualise, explore and communicate concepts.
- Use a variety of thinking strategies to solve the problems.
- Relate outcomes to the real world context.

- Present the curriculum content in a flexible manner by showing learners that there are a variety of methods to solve a problem.

### **2.3.1.2 Literacy**

Language and literacy are closely interlinked. Literacy simply defined is the ability to read and write (Lomofsky et al. 2007:79). According to Lerner (1993:346), language is a wondrous thing. It is recognised as one of the greatest of human achievements and the acquisition of language is unique to human beings. Language is a means of communicating and socialising with other human beings, it enables the culture to be transmitted from generation to generation and is a vehicle of thought. An untreated language deficit may diminish an individual's capacity to function as a whole person. Unlike a crippling defect of the body, a language disorder cannot be seen. Yet its effects are often more pervasive and insidious than acute, organic impairments.

An integrated language system consists of the language forms of listening, speaking, reading and writing (Lerner 1993:365). Reading and written language are two advanced forms of the spoken language and therefore most learners who experience problems in spoken language also experience problems in reading and written language. These difficulties may cause problems with interrelationships, hamper the learners' progress at school and limit their career opportunities (Dednam 2005b:123). The detrimental effects of reading disabilities have serious consequences, not only for the individual, but also for society in general (Lerner 1999:431).

Language problems of one form or another are the underlying basis for many learning disabilities (Lerner 1993:356). Understanding the important place of language in cognitive development has critical implications for education. Language is one of the main ways through which people communicate and may be considered an important tool of cognitive development (Donald et al. 2004:71). It has been recognised that oral language skills contribute to the development of reading and writing; as reading and writing skills develop, they result in the further development of oral language (Lomofsky et al. 2007:79). The learning support teacher and general education teacher need to be mindful of encouraging active language interactions in the classroom (Donald et al. 2004:73).

A learning support teacher may be effective in helping to give instruction in Language and Literacy in order to accommodate a diversity of learning styles and individual interests and needs. Support in language problems should start as early as possible and learning support teachers should be familiar with spoken language, reading and written language problems as well as methods and strategies of assessment and support for these problems (Dednam 2005b:123). An attempt should be made to provide multifaceted balanced instruction that includes an artful blend of direct instruction in phonics and other reading and writing strategies along with a rich assortment of literature, oral language and written language experiences (Lomofsky et al. 2007:85).

Within this study emphasis is given to instruction of the THRASS programme with a view to improving reading, spelling and writing abilities (1.2.3.1). One of the tasks in learning to read is to understand the relationship between the sounds used in oral language and the written symbols that are used to represent these sounds (Sands et al. 2000:170). Perfetti (1997) in Dednam (2005b:123) compares the relation between spelling and reading to the two sides of a coin. In spelling the speech sounds are transformed (decoded) into written letters and in reading the written letters are transformed (encoded) into speech sounds.

### **2.3.2 A SUPPORTIVE LEARNING ENVIRONMENT**

The psychosocial environment can act either as a barrier to or an opportunity for learning and development. The psychosocial environment should reflect norms and values which embody the principles of inclusion (Lazarus et al. 2007:48).

Inclusive school communities require a shift from exclusion, individualism, and isolation to an emphasis on belonging, alliances and mutual support (Sands et al. 2000:122). Systematic attention to positive social behaviours and student support structures is vital to establishing a sense of classroom community, a sense that everyone belongs, is valued, has something to contribute, and has rights but also responsibilities for the welfare of others in the class and school. Learners need assistance and guidance in developing skills characteristic of caring classrooms such as assisting others, problem solving and decision making. Being a member of a community can help us understand that together we are better, together we are stronger. This sense of community benefits not only learners with barriers to learning, but all learners (Walther-Thomas et al.

2000:259-261). Time spent building community is never wasted time. Establishing a positive classroom climate fosters the development of a healthy self-esteem and lays the groundwork for powerful academic growth (Sapon-Shevin 1999:33).

Sapon-Shevin (1999:16) identifies the following five characteristics of a community within a school:

- Security: a nurturing community is where it is safe to be yourself. A safe community allows for growth and exploration. It encourages risk taking and embraces achievement.
- Open communication: in a cohesive community there is open communication. Learners and teachers know that it is all right to talk about anything of concern and problems are not dismissed or negated.
- Mutual liking: In a supportive classroom community learners are encouraged to know and like their classmates. Multiple opportunities are provided for students to connect with each other and whilst learners are not forced to be friends, the classroom is structured so that learners learn to understand and appreciate their classmates.
- Shared goals or objectives: cooperative communities are those in which learners work together to reach a shared goal or objective. Learners are encouraged to help each other with schoolwork as well as personal problems. Learners see their classmates as friends, allies and co-workers rather than competitors or enemies.
- Connectedness and trust: in well developed communities people feel part of the whole and they know that they are needed, valued members of the group. Trust and connectedness is built upon telling the truth, asking others for help and support and sharing the good times.

Learning to be an effective community member within a classroom is a stepping stone to being a productive member of other communities (Sapon-Shevin 1999:17). It is within communities that people can begin to recognise their collective power. This is reiterated in an old labour union song:

Many stones can form an arch, singly none  
Drops of water turn a mill, singly none.

Related to classroom communities and cohesion is the general balance of competition versus co-operation. While both competition and co-operation are appropriate at different times, there is considerable evidence that less competition produces less friction and consequently greater cohesion (Donald et al. 2004:176). In inclusive learning communities, classrooms are not competitive places in which learners attempt to prove themselves but are co-operative environments in which learners support and nurture each other's learning. Learners and teachers work together in these classrooms to accomplish goals, accommodate each other's differences and find ways to encourage and nourish a high level of achievement and positive interaction (Bauer & Shea 2003:57).

Sapon-Shevin (1999:120) is of the opinion that competition takes a toll on our ability to be closely connected to others in as much as:

- We view ourselves as never good enough, smart enough or worthy enough as competition encourages us to measure our success against others and there is always someone who has accomplished more or accomplished it sooner. A competitive situation creates few winners and mostly losers. For many learners no matter how hard they try or how well they do, they will never be "the winner".
- Our sense of safety is diminished.
- We are discouraged from taking risks in our learning and growth because of the fear of failure within a competitive system in which we are not as good as someone else.
- We learn to see others as obstacles to our success. Competition encourages us to see others as roadblocks to our personal achievements.
- We are encouraged to win at any cost. A competitive agenda makes winning the ultimate goal and we begin to focus not on learning or changing or supporting others, but on being the one to win.
- It becomes harder for us to see other people fully and to be supportive of their efforts. Competition pits people against one another.

One of the major arguments made in favour of the necessity of competition is that it is motivating and that without competition people would simply not try or would settle into complacency and laziness. Sapon-Shevin (1999:123) questions the accuracy of this



pessimistic view of people and proposes that human beings by nature strive for growth and competence.

Good classroom communities are not those in which there are no conflicts. Rather, good classroom communities are those in which learners have been given opportunities and repertoires for resolving conflicts productively and peacefully (Sapon-Shevin 1999:118). A win-win position where all parties feel that they have gained from the outcome is an ideal you should strive towards in conflict resolution (Donald et al. 2004:189). Learners that are empowered and supported to address conflict are more likely to adopt the solutions that they develop than if the ideas come from adults (Jorgensen 2006e:130).

Collaborative problem solving (CPS) has been identified by Sapon-Shevin (1999:98) as a five step process in which learners and adults may work together to resolve conflicts and problems. It involves the following steps:

- Identify the issue.
- Generate all possible solutions. Brainstorm potential solutions to the issue. The intent is simply to identify any possible alternative to what is currently happening.
- Screen solutions for feasibility.
- Choose a solution to implement. Reach a consensus on which solution to implement, thus ensuring greater commitment to the solution that the group has identified.
- Evaluate the solution.

A supportive learning environment is a crucial point of focus for developing an inclusive environment and as such the learning support teacher should strive to create a climate of collaborative respect and cooperation that ultimately will infuse the school as a whole.

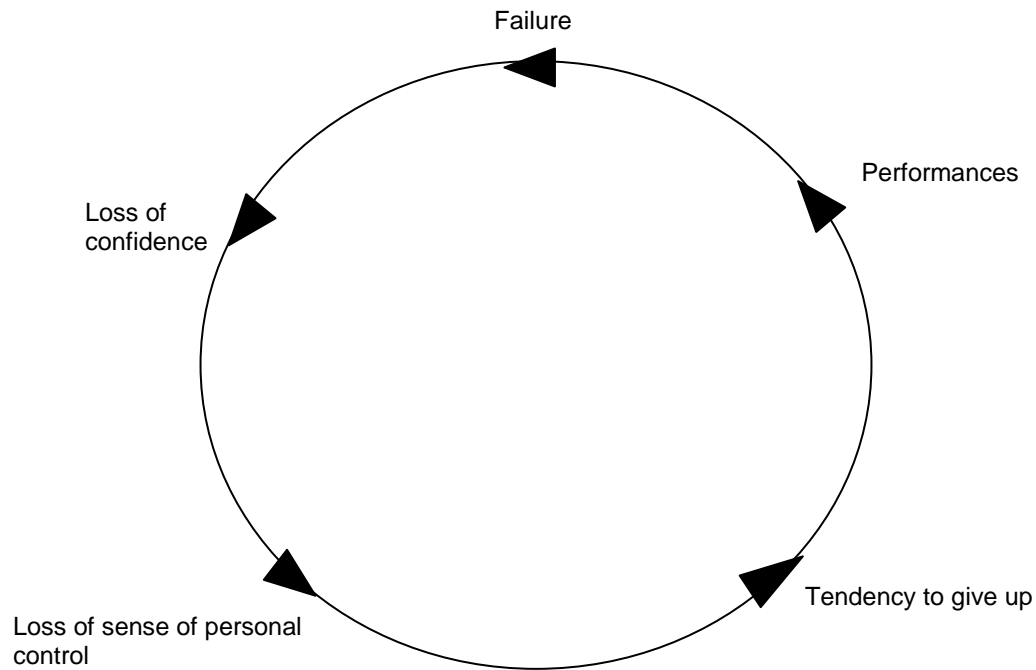
### **2.3.3 SUPPORT FOR THE LEARNER AS AN INDIVIDUAL**

The learner as an individual is multifaceted. In keeping with inclusion practices the learning support teacher should endeavor to support the individual in a holistic manner. For the purpose of this section of this study, the improvement of self-esteem through the development of self-determination and motivation are the areas of focus regarding support for the learner as an individual. Low self-esteem often stems from school failure. Children define themselves through their self-knowledge and if all they know about

themselves is their weaknesses then poor self-concept and lack of self-efficacy are likely outcomes. To help ameliorate low self-esteem and unhappiness, school environments must be structured to create successful experiences. One method involves boosting self-determination or making learners more active participants in designing their educational experiences and monitoring their own successes: this can be done by teaching self-awareness and self-advocacy skills (Smith et al. 2006:185). According to King-Sears (1997) in Bauer and Shea (2003:210), self-determination is a foundational component of inclusion. Field and Hoffman (1994) in Bauer and Shea (2003:210) describe self-determination as the ability to define and reach goals based on a foundation of knowing and valuing oneself. Self-determination refers to the inherent right of individuals to assume control of and make choices that affect their lives. An individual is self-determined if his or her actions reflect four essential characteristics: autonomy, self-regulation, psychological empowerment, and self-realization (Jorgensen 2006b:56). From a learning support teacher's perspective, self-determination may be fostered by allowing a learner who is experiencing barriers to learning to participate in IEP meetings and to encourage the learner to communicate his or her thoughts, concerns, opinions and wishes (Jorgensen 2006b:58).

Motivation is the fuel that propels our performance that encourages us to expend effort or engage in a task (Sands et al. 2000:168). According to Schunk (1996) in Sands et al. (2000:168), motivation is optimised through high self-regard. When individuals perceive themselves as being effective at a particular task, their motivation increases. Motivation, in turn, leads to attention to task, persistence and increased effort. Motivation theorists believe that individuals expend effort if they expect to succeed at a task and if they value the outcomes of the task. Motivation can be promoted externally through activities, events and people in the environment or it can be generated internally by the individual who may have highly goal-directed behaviour. Extrinsic motivation is modulated by forces outside the learner and the choice to use extrinsic forms of motivation should be determined by learner needs, not teacher preference. Extrinsic motivators include recognition, attention, prizes, money, position and status. In contrast intrinsic motivation is internally generated such as feelings of well-being, self-esteem, confidence and identity (Sands et al. 2000:357-358). Motivation is vital to the success in addressing barriers to learning. Learners who are experiencing barriers to learning are apt to

experience failure and under these circumstances a vicious cycle of failure (see Fig 2.2 below) may occur (Donald et al. 2004:303).



**Fig 2.2: The vicious cycle of failure**

Source: Donald et al. (2004:303)

The learning support teacher may have an important role to play in helping learners break the cycle of failure by building small successes into every possible activity. Donald et al. (2004:303) are of the opinion that motivation and resultant success is one of the most powerful tools in breaking the vicious cycle of failure.

Given the failure often experienced by learners with barriers to learning, motivational problems can seriously undermine the learning experience (Smith et al. 2006:470). Without motivation the best-executed instruction will not result in the intended outcomes (Sands et al. 2000:356).

### 2.3.4 INSTRUCTIONAL SUPPORT FOR THE LEARNER

An important principle of effective instructional support emerging from the insights of Piaget and Vygotsky is that teaching must connect with where the learners are at in their understanding (Donald et al. 2004:109).

Piaget's theory of cognitive development rests on the contributions of maturational and environmental influences. Gargiulo and Kilgo (2005:11) identify Piaget's four stages of cognitive development as follows:

Approximate Age	Stage	Distinguishing Characteristics
Birth - 1 or 2 years	Sensorimotor	Knowledge constructed through sensory perceptions and motor activity. Thought limited to action schemes.
2 - 7 years	Preoperational	Emergence of language and symbolic thinking. Intuitive rather than logical schemes. Egocentric in thought and action.
7 – 11 years	Concrete Operational	Beginning of logical, systematic thinking; limited, however, to concrete objects. Decreased egocentrism.
12 – 15 years	Formal Operations	Abstract and logical thought present. Capable of solving hypothetical problems. Deductive thinking and scientific reasoning is possible.

**Table 2.1: Piaget's four stages of cognitive development**

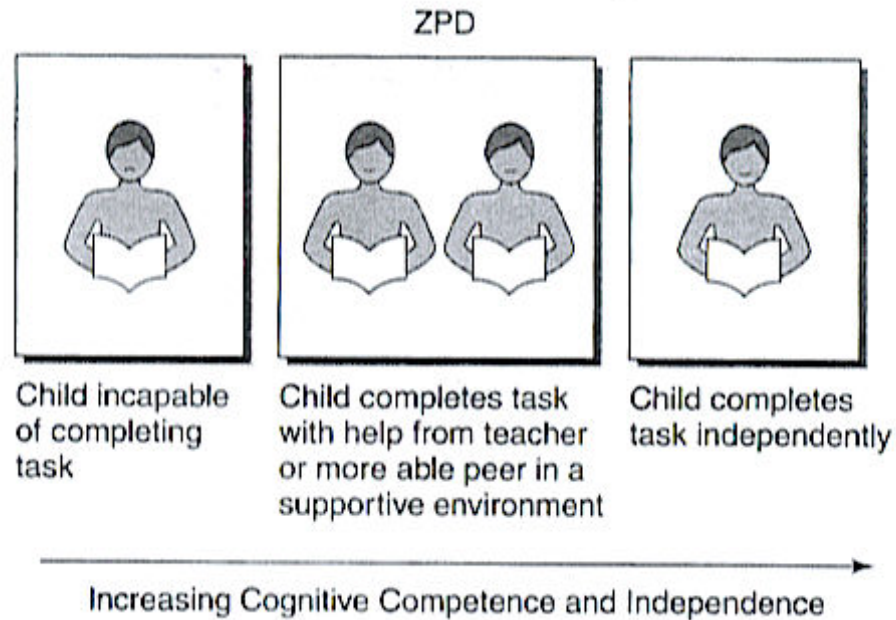
Source: Gargiulo & Kilgo (2005:11)

According to Piaget cognitive growth occurs in a series of invariant and interdependent stages. These stages are sequential and hierarchical and it is essential that learners are given ample opportunity to stabilise behaviour and thought at each stage of development (Lerner 1993:183). The implications of this kind of development for education is to view the stages not as fixed 'age-bands' , but rather in terms of progressive potential (Donald et al. 2004:69). Learning support should be designed and aimed at strengthening the thinking foundation on which further learning is grounded, otherwise learning will be merely surface and illusionary (Lerner 1993:183-186).

Maturation establishes a sequence of cognitive stages, but the environment contributes to the learner's experiences which in turn dictate how they develop (Gargiulo & Kilgo 2005:10). An educational implication of Piaget's theory is that development does not just take place. It is based on active engagement and exploration of the physical and social world. If we are to optimise the process of learning, learners need to be given the opportunity to experiment and discover things for themselves (Donald et al. 2004:69).

Vygotsky has also been a highly influential contributor to the present understanding of how learners learn and develop. He worked from the premise that learning and development occur via social interaction and engagement and, as such, parents, teachers and peers have a profound influence on a learner's development (Gargiulo & Kilgo 2005:11). The most far reaching educational implication of Vygotsky's theory lies in his insight into the social construction of knowledge. Knowledge is thus not a given or unchanging; it varies across different social contexts and is built up through the process of social interaction (Donald et al. 2004:72).

Vygotsky's insight into cognitive development has reference for the learning support teacher and highlights mediation as the engine that drives cognitive development (Donald et al. 2004:69-73). Vygotsky's zone of proximal development (ZPD) has particular relevance to the support of learners experiencing barriers to learning. The ZPD exists between what a learner can presently accomplish independently and what the learner is capable of doing within a supportive environment (Gargiulo & Kilgo 2005:12).



**Fig 2:3 Vygotsky's Zone of Proximal Development**

Source: Gargiulo & Kilgo (2005:12)

The learner support teacher's role may involve implementing Vygotsky's principle of scaffolding. Scaffolding refers to assistance given to learners to enable them to construct new concepts and function independently. This goal is generally obtained by providing the minimum amount of assistance necessary and then further reducing this aid as the learner grows in confidence. Within this context the learning support teacher's role is one of supporting, guiding and facilitating learning (Gargiulo & Kilgo 2005:12). When learners are learning new concepts or skills, learning support teachers can provide more supports or "scaffolds" by carefully structuring the types of cues, tasks, content and materials used at different points in the learner's learning. As learners demonstrate increasing proficiency, supports are faded out or progressively withdrawn to promote independence and mastery (Walther-Thomas et al. 2000:247). The use of scaffolding allows learners to engage in complex tasks that they might not otherwise have been able to manage on their own (Sands et al. 2000:337).

Within the sphere of instructional support the learning support teacher should be mindful of various learning styles in her quest to accommodate learners in an inclusive setting. An awareness and appropriate use of specific learning styles may enhance the instructional support that is designed to meet the needs of diverse learners. Learners

learn differently and they may learn optimally through either visual, or auditory or the tactile/kinaesthetic modality. Teachers thus need to use a range of strategies commensurate with learning styles. Learning styles should not be regarded as entirely discreet and mutually exclusive. As teachers adjust their teaching styles to accommodate the preferred learning styles of learners, they are practising one of inclusion's fundamental tenets which is that the system adapts to learners and not the other way around (Lockhart Walton 2006:88).

Peer instruction can be an effective means of providing instructional support and promoting inclusive practices. The learning support teacher may promote and harness this potential in her effort to develop an inclusive model of education. Peer tutoring and supports are forms of peer instruction in which peers serve as instruction agents or helpers. In peer tutoring peers provide one-to-one instruction, increasing learners' opportunities to respond (Bauer & Shea 2003:244-245). Smith et al. (2006:54) identified the following positive features of peer instruction: it enhances social skills, provides opportunities for correction and feedback and can be beneficial for both tutors and tutees. Peer instruction allows learners to motivate their peers to contribute their best performance to complete tasks and ensure success (Bauer & Shea 2003:244). For peer instruction to be effective, no one should be permanently stuck in the role of receiving help as there are benefits to both receiving and providing support. In inclusive classroom where the range of skills and interests is wider than usual, it is especially important that relationships be reciprocal (Sapon-Shevin 2007:198).

In providing a framework for a general classroom that is receptive to peer instruction, a learning support teacher can help establish classroom norms and practices that are based on the assumption that all people need help, that giving and getting help are good things and that helping others creates a win-win solution bringing people closer together (Sapon-Shevin 1999:91). Learning support teachers can systematically teach and structure repertoires to promote community development and peer instruction. According to Sapon-Shevin (1999:91), the four repertoires related to help and support include:

- Asking for help appropriately. "Could you please help me with this?"
- Offering help respectfully. "Would you like a hand with that?"
- Accepting help graciously. "Thanks for noticing I needed help with that. "

- Rejecting help kindly. “Thanks for asking, but I’d rather do it myself.”

Assessment is an integral part of inclusive education and gives backbone to the instructional support of a learner. It is a dynamic process and not a single procedure (Gargiulo & Kilgo 2005:115). Assessment in an inclusive classroom requires that the school professionals engage systematically in formative and summative assessment in order to provide a multidimensional view of the learners and of the system. Formative assessment is an ongoing process of information gathering and it helps to shape or form the instructional process. Summative assessment is intermittent and is usually applied as a final judgment on a learning unit. It is a summing up of all the results of prior assessments and guides future planning for development, deployment and placement (Archer & Rossouw 2007:109-110; Sands et al. 2000:229).

Against the backdrop of formative and summative assessments, it is necessary to accommodate diverse learners within the assessment programme. In inclusive classrooms great variance in prior knowledge, attention spans, learning rates, preferences, abilities and talents necessitates multiple assessment approaches. In addition to traditional pen and paper assessments, a teacher in a heterogeneous classroom can use demonstrations, role plays, posters, performances, interviews, oral reports, diagrams and portfolios to provide evidence of learning (Lockhart Walton 2006:94). In inclusive settings it is thus essential that assessments be a shared process through which professionals and families exchange information to the benefit of the learner (Gargiulo & Kilgo 2005:12; Walther-Thomas et al. 2000:253-256). The progress and academic performance of learners should be assessed against their previous performance and not in comparison with the performances of other learners (Sidogi 2001:61).

Three main purposes of inclusive assessment have been identified according to Jorgensen (2006c:140):

- To determine learners’ skills in academic, social, emotional and functional domains.
- To determine the constellation of supports and accommodations that learners need in order to be successful learners within the general education curriculum.



- To determine what support and resources teams need in order to teach these learners well.

Salvia and Ysseldyke (2001) in Smith et al. (2006:114) identified the following four approaches used for gathering information on learners:

- Observation: data collected through naturalistic observation can be highly accurate and provide detailed, relevant information on how the learner performs in the natural environment.
- Recollection by means of an interview or a rating scale: individuals familiar with the learner are asked to recall events and interpret their behaviours. The most commonly used are interviews or rating scales that can be obtained from the learners through a self-report or from peers, family members or teachers.
- Record or portfolio review: existing information such as school cumulative records or learner products should be reviewed for insight into the learners' needs and strengths. Portfolios allow students to assume more ownership for learning and to show what they can do related to the topics and skills being addressed. A portfolio is not simply a collection of a learners work; rather, a portfolio is organized around identifiable objectives or guidelines. Portfolios can function both as a learner's resume and as a way to demonstrate growth (Bauer & Shea 2003:129-133). A learner's portfolio is a thoughtfully selected collection of work. Products and performances can be captured in written documents, evaluations written by others who worked with the learner, videotapes or audiotapes of performances, photographs, electronic files (Sands et al. 2000:248).
- Testing: there has been a shift from traditional, norm-referenced, standardised testing to performance assessments. Performance assessments allow learners to demonstrate their knowledge in thoughtful ways in a number of contexts including authentic assessments in which learners apply their knowledge to challenging real-life situations and portfolio assessments (Bauer & Shea 2003:126). Standardised testing tools are usually norm-referenced tests, which means that an individual learner's performance on a test is compared to that of other learners within the same age group. Curriculum based assessments are used to interpret a learner's performance in relation to specific curricular objectives (Gargiulo & Kilgo 2005:132). They can be thought of as precise, task-

analysed, teacher-made tests or commercially produced tests that are closely aligned with the content being taught (Walther-Thomas et al. 2000:253). Curriculum based assessments assist school professionals in refining and strengthening their instructional strategies (Sands et al. 2000:247).

Where possible, appropriate continuous assessment (a process of gathering valid and reliable information about the performance of the learner on an ongoing basis, against clearly defined criteria, while using a variety of methods, tools, techniques and contexts) should be used in the foundation phase of learning. It supports the growth and development of learners, provides constant feedback, and gathers evidence of learners' achievements with regards to assessment standards of the learning outcomes (Department of Education 2002:32).

### **2.3.5 CURRICULUM SUPPORT FOR THE LEARNER**

The curriculum is a focal point of inclusion practices. With the move towards inclusion comes the need to look critically at the curriculum as a potential barrier to learning. The curriculum is often misunderstood as referring to the syllabus or the content of what is taught. A curriculum is much more than this. Apart from content the curriculum includes how the programme is structured; the processes and methods of teaching/learning; methods of assessment and evaluation; and a range of factors that characterise the particular shape or form of the whole programme (Donald et al. 2004:21). Inclusive school communities must create overarching curriculum frameworks that can be tailored to accommodate the needs of individual learners (Sands et al. 2000:324). Darling-Hammond and Falk (1997) in Lockhart Walton (2006:98) maintain that because all learners learn differently and bring different life experiences to their learning, no single highly prescriptive curriculum can be regarded as equally effective for all learners.

Outcomes-based education (OBE) has been implemented in South Africa as the new curriculum. It is a useful vehicle for implementing inclusive education in that it is more flexible and makes allowances for variations in learning rates, pace and style. According to Spady (1994) in Naicker (2007:2) one of the most important features of OBE is that it is concerned with establishing conditions and opportunities within the system that enable and encourage all students to achieve essential outcomes. Spady (1994) is quoted in

Mabuya (2003:38) as of the opinion that the aim of OBE is to prepare learners for life rather than schooling.

School professionals need to work to ensure that the curriculum is not a barrier to inclusion practices. The curriculum should be flexible so it can be responsive to a full range of diverse needs of learners (Sidogi 2001:61). The outcomes-based education framework being developed in South Africa emphasises the teacher's role in curriculum development, and highlights the need for teachers to develop their competence to identify and respond to local needs, thus providing a flexible programme for accommodating the diverse needs of the learner population (Lazarus et al. 2007:51). General education teachers and learning support teachers have skills that, when joined, put them in a position of creating curricula that take into account learners' diversity as well as their individual learning needs and capacities. General education teachers bring in-depth knowledge of content areas and insight into the curriculum framework that can be applied to provide greater access for larger and more diverse groups of learners. Learning support teachers bring additional important knowledge about learner variance and pedagogical skills. Curriculum reform provides common ground on which general education teachers and learning support teachers may work (Sands et al. 2000:290-293).

The IEP is a useful tool in determining curriculum adaptations and modifications (Sands et al. 2000:322). Instead of fitting the learner into a curriculum, a curriculum is tailored to meet the individual needs of a learner. The IEP acknowledges differences amongst learners and ensures that instructionally relevant interventions are planned and implemented to enable individual learners to succeed (Lockhart Walton 2006:96). An individualised education programme serves as a written commitment for the delivery of services to meet the learners' needs (Bauer & Shea 2003:30).

The required components of an IEP have been identified according to Gargiulo and Kilgo (2005:189):

- A statement of the learner's present levels of educational performance.
- A statement of measurable annual goals and accompanying short-term instructional objectives which address the learner's involvement and progress in the general education curriculum.

- A statement of supplementary support services and aids necessary to advance towards attainment of annual goals.
- An explanation of the extent, if any, to which the learner will not participate in the general education classroom.
- A statement of any individual modifications needed for the learner to participate in state or district assessments.
- Projected date of initiation of services; expected location, duration, and frequency of such services.
- A statement of how progress towards annual goals will be measured and a statement of how learner's parents/guardians will be regularly informed of such progress.

The purposes and functions of an IEP are outlined by Bauer and Shea (2003:73):

- The IEP is a communication vehicle, enabling parents and school personnel to jointly determine, as equal partners, learners' needs, the services that will be provided to meet those needs, and the anticipated outcomes.
- An IEP is a management tool that ensures that learners are provided the related services that learners need.
- An IEP serves as an evaluation device to determine the extent of learners' progress towards projected outcomes.
- An IEP provides an opportunity for resolving difference between learners' parents and the school.

The implementations of IEPs have not been exempt from critical concern. Ainscow (1999:199) raises the issue that IEPs may effectively become a way of marginalising some learners. Despite this concern the IEP has a definite role in ensuring that support will allow access and participation for learners who experience barriers to learning.

The challenge is for the learning support teacher, in an effort to promote inclusion, to become more proactively involved in developing and delivering a curriculum which is relevant to the diverse needs of the learners. When lessons fail, the focus should be on the appropriateness or inappropriateness of the curriculum and not on the shortcomings of the learners (Lockhart Walton 2006:98).

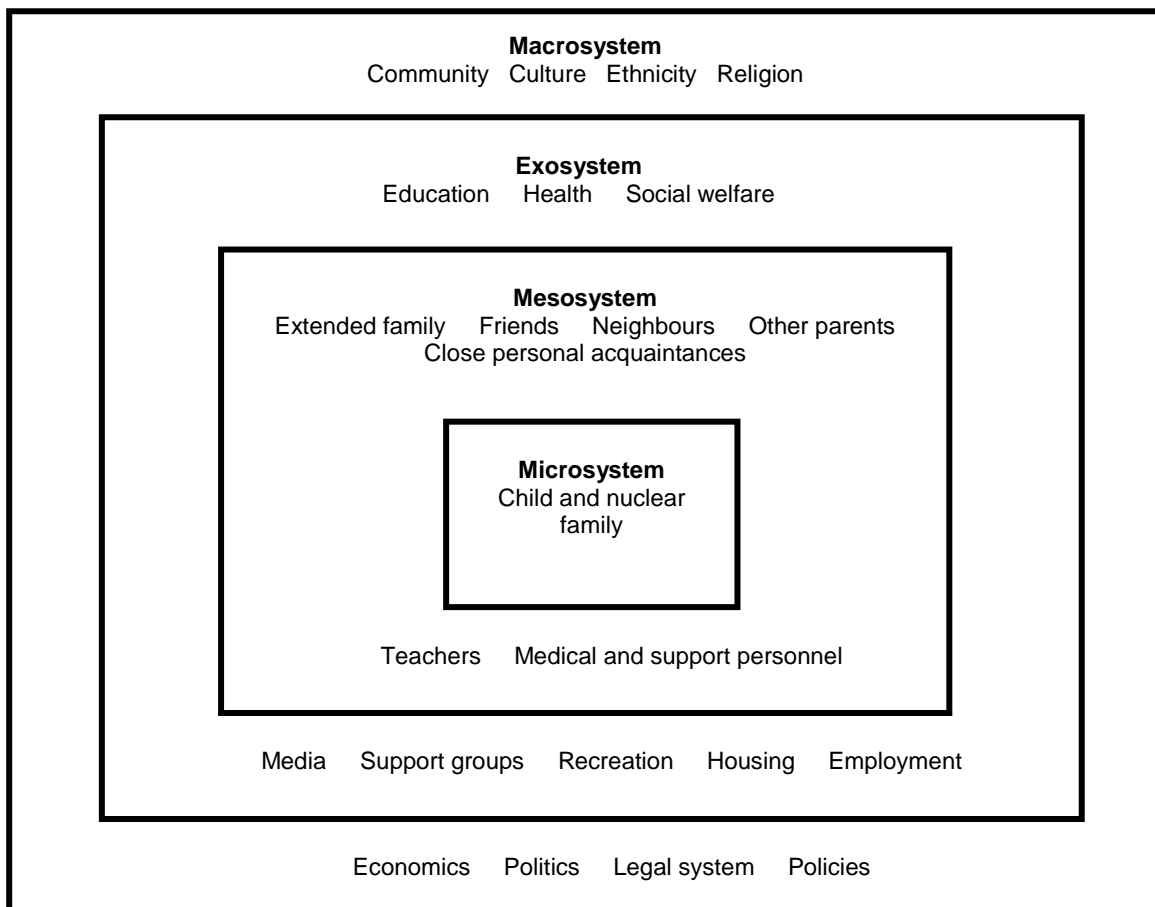
### 2.3.6 SYSTEMIC SUPPORT FOR THE LEARNER

A major challenge of the education system is to understand the complexity of the influences, interactions and interrelationships between the individual learner and multiple other systems. There is continuous, dynamic interaction between the multiple contexts which has an influence on the learners' development (Donald et al. 2004:55). In the field of inclusive education, Bronfenbrenner's ecological model of development has much relevance in emphasising the interaction between an individual's development and the systems within the general social context. Bronfenbrenner's theory rests on the notion that the social contexts in which a person develops are interrelated and nested one inside the other like a *matrosyoshka* or set of Russian stacking dolls. A key component of Bronfenbrenner's model is the understanding that learners are also active participants in their own development, and the environment does not therefore simply impact on the learner. A learner's perceptions of his or her context are central to understanding how they interact with the environment (Swart & Pettipher 2005:9-12).

Bronfenbrenner identifies four nested structures or environmental systems in which people develop (see Fig 2.4 below):

- **Microsystems:** these are the immediate environments in which an individual develops. The microsystem looks at relationships within the crucial setting of the learner's family (Gargiulo & Kilgo 2005:49). It is characterised by those individuals and events closest to one's life, and involves continual face-to-face contact, with each person reciprocally influencing the other (Swart & Pettipher 2005:11).
- **Mesosystems:** these are identified as the relationships between various microsystems. The mesosystem is very similar to what some call the neighbourhood or the local community (Donald et al. 2004:52). At this level the family, school and peers interact with one another, modifying each of the systems. Implementing inclusion is not possible without paying attention to developing relationships between the different microsystems, for example school-family partnerships (Swart & Pettipher 2005:11).
- **Exosystems:** This term refers to one or more environments in which the developing learner is not necessarily directly involved as an active participant, but which may influence or be influenced by what happens in settings and relationships that directly influence the learner, for example, the education

- system, health system, media or parent's place of work (Swart & Pettipher 2005:11).
- **Macrosystems:** these are the ideological, cultural and institutional contexts in which the preceding systems are embedded (Gargiulo & Kilgo 2005:49). This refers to the attitudes, beliefs, values and ideologies inherent in the systems of a particular society (Swart & Pettipher 2005:11).



**Fig 2.4: An illustration of Bronfenbrenner's ecological systems theory**

Source: Adapted from Swart & Phasha (2005:215)

The learning support teachers need to take into consideration the relationship between the learners and the environment when devising strategies on how best to accommodate diversity. Quality programmes for learners with barriers to learning demand that professionals take into consideration the fact that a learner is part of a system that interacts reciprocally within his or her environment (Gargiulo & Kilgo 2005:49).

## **2.4 CONCLUSION**

The literature review has served as a foundation for this study and places it within the context of inclusion research both in South Africa and internationally. It has sought to clarify concepts critical to inclusion and pertinent to the influence that a learning support teacher may have in promoting a model of inclusion within the foundation phase in an independent school. Furthermore, the reviewed literature guides the choice and development of the research instrument.

The goal of having an inclusive classroom is not to homogenize differences, ignoring their presence or impact on learners or their lives. The aim is to acknowledge diversity and create a classroom community that works with and sometimes around differences so that every learner can have a sense of connection and belonging (Sapon-Shevin 1999:64). According to Ainscow (1999) in Fielding Barnsley (2005:8), successful inclusion requires a wide array of school-based modifications to succeed and the school as a whole must be committed to reducing barriers to learning for all learners and responding positively to learner diversity.

Ultimately to provide an inclusive education for learners requires conviction and commitment. Learning support teacher may play a pivotal role in making inclusive education a reality and through their attention to the curriculum, to instructional strategies and to the classroom environment, they may be able to meet individual needs within a shared community context and become torchbearers of inclusive education (Sapon-Shevin 1999:67).

## CHAPTER 3

### RESEARCH DESIGN

#### 3.1 INTRODUCTION

Inclusion is not just for learners with disabilities, but rather for all the learners, educators, parents and community members (Villa & Thousand 1995:10). The need for all to embrace and celebrate diversity is captured in the following cartoon.



**Fig 3.1: Foundational ideas**

Source: Giangreco & Doyle (2007:1)

The previous chapters have established an understanding of inclusion from a learning support teacher's perspective within a South African context. Insights gained from local and international literature were used as a basis for the research and the findings aim at



illuminating more precisely how a learning support teacher can promote the development of an inclusive model of education. This chapter focuses specifically on the: purpose of research, research methods, research design, data analysis and ethics.

### **3.2 PURPOSE OF RESEARCH**

The purpose of this study is to explore and describe ways in which a learning support teacher can promote the development of an inclusive model of education regarding Numeracy and Literacy in the foundation phase at independent schools.

In order to examine this composite area of study it is necessary to pose questions that narrow the focus of study, but do not constrain the qualitative researcher (Creswell 1994:70). The following specific research questions and resultant data were used to this intent:

- How will learning support be implemented in a general classroom setting?
- What support will the learning support teacher provide to learners with Numeracy and Literacy problems?
- What challenges will the learning support teacher encounter in promoting an inclusive model of education?

The purpose of this study is broad-based. A fundamental point of departure is to focus on learning support specific to a South African independent school. Whilst international inclusive practices and trends have a bearing on this study, South Africa's unique past and complex educational milieu make it unrealistic to simply transfer lessons learned from abroad.

Viewed from an overarching educational perspective, the purpose of this study is to serve as a reminder to persons involved in education within South Africa of their duty to accommodate and support diverse learners. Greater knowledge and understanding of the range and scope of the learning support teacher's work regarding inclusion may generate confidence in the worth and feasibility of inclusive practices. It is possible that this may lead to a point of revision of school policies that could facilitate more successful inclusion of learners experiencing barriers to learning. An appreciation of inclusion may challenge the established concept of one dimensional academic excellence to widen its vista and incorporate social acceptance and awareness as yardsticks of success. From

a learning support teacher's point of view comprehensive knowledge of the potential of learning support teachers to promote inclusion could provide them with an opportunity to reflect on their own practices and consider alternative ideas and forms of support. It may encourage learning support teachers to relinquish old habits that do not serve the needs of learners. With regard to learners, the purpose of the study is to promote educational practices that engender feelings of worth and belonging which underpins the vision of inclusion.

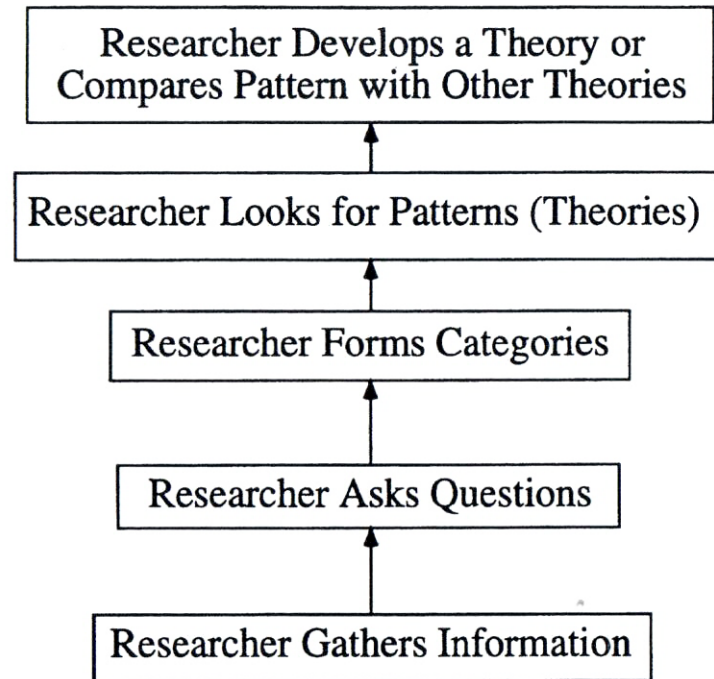
### **3.3 RESEARCH METHOD**

#### **3.3.1 QUALITATIVE RESEARCH**

A qualitative research paradigm refers to research that elicits participants' accounts of meaning, experience or perceptions (Fouché & Delport 2006:74). According to McRoy (1995) (ibid), the qualitative paradigm stems from an antipositivistic, interpretative approach; it is idiographic and thus holistic in nature.

Qualitative research is descriptive in nature. It produces descriptive data in the participant's own written or spoken words (Fouché & Delport 2006:74). Qualitative research thus describes and analyses people's individual and collective social actions, beliefs, thoughts and perceptions and is primarily concerned with understanding the social phenomena from the participants' perspective (McMillan & Schumacher 2001:395).

The process of qualitative research is inductive. The researcher does not begin with a theory to test or verify. Instead, consistent with the inductive model of thinking, the researcher builds abstractions, concepts, hypotheses and theories from details (see Fig 3.2 below). A theory may emerge during the data collection and analysis phase of the research or be used relatively late in the research process. Qualitative researchers typically become immersed in the phenomena studied and bear the attitude of appreciation rather than act as an expert (Creswell 1994:95-145).



**Fig 3.2: The inductive mode of research in a qualitative study**

Source: Creswell (1994:96)

### **3.4 RESEARCH DESIGN**

The research design involves the entire process of planning and carrying out of a research study. A phenomenological research design has been selected for this study. Phenomenology examines phenomena just as they occur, without imposing personal theories or specific systems upon the phenomena (Meyer, Moore & Viljoen 1997:364). This approach aims to understand and interpret the meaning that subjects give to their everyday lives (Fouché 2006:270).

In phenomenology no preconceived notions, expectations, or frameworks guide researchers as they analyse data (Creswell 1994:95). A phenomenological study requires that the researcher 'brackets' or puts aside all prejudgments and collects data on how individuals make sense out of a particular experience or situation (McMillan & Schumacher 2001:36). The researcher should be able to enter the participant's life world and place himself or herself in the shoes of the participant (Fouché 2006:270).

### **3.4.1 SELECTION OF SAMPLE**

By a small sample we may judge of the whole piece

-Cervantes

Sampling is a method of selecting some part of a group to represent the total. In research the total group is called the population, while that part of the total that is selected is called the sample. The qualitative researcher's concern is to find cases that will enhance what he or she learns about the processes of social life in a specific context (Neuman 2006:219). Informants and events are selected for their unique ability to explain, understand, and yield information about the meaning of expressive behaviour or the way the social system works (Vockell & Williams Asher 1998:200).

For this study purposeful sampling, which is a nonrandom sampling technique, is used. The power and logic of purposeful sampling is that a few cases studied in depth yield many insights about the topic (McMillan & Schumacher 2001:401). In purposeful sampling the selection of participants is a key decision point. Participants are selected to meet particular goals of the researchers, such as ensuring heterogeneity or involving key persons in the research sample (Vockell & Williams Asher 1998:451). It is hoped that key participants will yield maximum information related to specific issues.

The selected site for this study was an independent preparatory school for boys in Johannesburg. The sample participants included: a Head of Department, four general education teachers, three learning support teachers, and a number of learners. The Head of Department and the four general education teachers have been formally trained and are in possession of degrees or diplomas in Education. The general education teachers have all had some exposure to inclusive education and the accommodation of learners with barriers to learning and they have experienced learning support offered within Grade 3 general classrooms. The three learning support teachers have formal training and qualifications in Special Needs Education. They do not take part in learning support within Grade 3 general classrooms, but are involved in individual and group out of class support.

Learning support that is given within the general classroom is not limited to a fixed group of learners. The group configuration varies according to the needs of the learners, the area of learning and the objective of the lesson. With regards to the selected learners, I

chose four data rich learners who had received learning support within the general classroom. The boys were in Grade 3 and between the ages of eight and nine years.

### **3.4.2 DATA COLLECTION**

According to Creswell (1994:148) the data collection steps involve:

- Setting the boundaries for the study
- Collecting information and data
- Establishing the protocol for recording information

#### **3.4.2.1 Boundaries for the study**

Boundaries for data collection are influenced by the general research methods pertaining to the study (3.3) and the proposed research questions (3.2). The specific parameters for data collection in this study include: choice of site and selection of participants (3.4.1).

#### **3.4.2.2 Data collection procedures**

In qualitative research there are four basic data collection procedures: observations, interviews, documents and visual images (Creswell 1994:149). Most qualitative research depends on multi-method strategies to collect data. Multi-method is the use of multiple strategies to collect and corroborate data (McMillan & Schumacher 2001:428). Interviewing was the predominant mode of data collection in this study, but documents and observations were also used.

##### *a. Interviews*

In qualitative research interviewing the participant involves procuring a description of the experience, and then reflecting on the description. It is important that the researcher has the ability to differentiate between content and process during the interview. The content refers to *what* the participant is saying whilst the process involves reading between the lines and noticing *how* the participant talks and behaves during the interview (Greeff 2006:287-291).

Semi-structured interviews were used in this study. Semi-structured interviews are organised around areas of particular interest, while still allowing considerable flexibility in scope and depth. The researcher is able to follow up particular interesting avenues that

emerge and the participant is able to give a fuller picture. The researcher may have a set of predetermined questions, but the interview is guided by the schedule rather than dictated by it (Greeff 2006:292-297).

A semi-structured one-to-one interview was used when interviewing the Head of Department. The semi-structured one-to-one interview is usually used to gain a detailed picture of a participant's beliefs about or perceptions or accounts of, a particular topic (Greeff 2006:296). I decided to interview the Head of Department individually as she is involved with the management and implementation of the learning support programme and I wanted to afford her the opportunity to comment extensively on the topic.

Focus groups were used as an interviewing method when interviewing general education teachers and the learners. The focus groups in this study each had four participants. Focus groups are a powerful means of exposing reality and of investigating complex behavior and motivation. Morgan (1997) in Greeff (2006:300) describes focus groups as a research technique that collects data through group interaction on a topic determined by the researcher. The participants are selected because they have certain characteristics in common that relate to the topic of the focus group; the group is "focused" in that it involves some kind of collective activity. A potential strength of focus groups is that the right group composition will generate free-flowing discussions that contain useful data. The synergy of the group has the potential to uncover important constructs that may be lost with individually generated data (Greeff 2006:299-312).

I recorded the interview on audio-tape and transcribed the tapes for the purpose of this study.

#### *b. Documents*

In contrast to the interviews, document collection is a non-interactive strategy for obtaining qualitative data with little or no reciprocity between the researcher and the participant (McMillan & Schumacher 2001:451). I made use of documents generated by Edward de Bono's mind tool: Plus, Minus, Interesting (PMI) to gather data from three learning support teachers. According to this technique, a table with three columns headed Plus, Minus and Interesting is drawn up. Within the table the participants are asked to write down positive points, negative points and interesting implications

pertaining to the topic. I felt that using a PMI as a deliberate operation would give learning support teachers a means of by-passing a purely emotional reaction to an idea and that it created an opportunity for rational thinking ([www.mindtools.com/pages/article/newTED\\_05.htm](http://www.mindtools.com/pages/article/newTED_05.htm)). I discussed the principles of a PMI with the learning support teachers and they were given an opportunity to clarify their understanding of the task and discuss their responses with me where necessary.

### *c. Observations*

Participant observation enables the researcher to obtain people's perceptions of events and processes expressed in their actions and expressed as feelings, thoughts, and beliefs. These perceptions or constructions take three forms: verbal, nonverbal and tacit knowledge (McMillan & Schumacher 2001:437-439). With regards to this study I was conscious of actively observing whilst working as a learning support teacher within the general classrooms, during interviews and document collection. I endeavoured to listen carefully to verbal messages and take note of nonverbal cues such as gestures, tone of voice and facial expressions. I also endeavoured to take note of participants' tacit knowledge, which is personal intuitive knowledge.

### **3.4.2.3 Establishing protocol for recording information**

Before entering the field qualitative researcher should plan their approach to data recording. Creswell (1994:152) suggests that a useful protocol for conducting interviews would include:

- Instructions to the interviewer (opening statements)
- The key research questions to be asked
- Probes to follow key questions
- Space for recording the interviewer's comments
- Space in which the researcher records reflective notes

With regards to the PMI document the protocol for recording information includes the opening statements and the recording of the interviewer's comments and reflective notes. However, the key research questions and probe questions would be replaced by the written requirements of a PMI.

### **3.4.3 DATA ANALYSIS**

The purpose of conducting a qualitative study is to produce findings. Qualitative analysis of data is needed to transform data into findings. This demands the process of bringing order, structure and meaning to the mass of collected data. In turn this involves reducing the volume of raw information, sifting significance from trivia, identifying significant patterns and constructing a framework for communicating the essence of what the data reveals (De Vos 2006:333).

Qualitative data analysis is primarily an inductive process of organising the data into categories and identifying patterns among the categories. Inductive analysis means that categories and patterns emerge from the data rather than being imposed on data prior to data collection (McMillan & Schumacher 201:461-462).

Qualitative phases of data collection and analyses are interactive research processes that occur in overlapping cycles. These strategies are flexible and dependent on each prior strategy (McMillan & Schumacher 2001:405). De Vos (2006:334) presents an integrated process for qualitative data analysis. She is mindful of the analytical spiral of data collection and analysis and the following outline for the process of qualitative data analysis which is presented in linear form is intended as a guideline. This guideline should not be considered as a recipe to be followed rigidly as the steps may overlap or be carried out in a different sequence. I used this guideline for analysis in my study.

- Planning for recording of data
- Data collection and preliminary analyses
- Managing or organizing the data
- Reading and writing memos
- Generating categories, themes and patterns
- Coding the data
- Testing the emergent understanding
- Searching for alternative explanations
- Representing, visualizing (i.e. writing the report)

In analysing the data the issue of internal validity, the accuracy of the information and its match with reality should be addressed (Creswell 1994:158). McMillan and Schumacher (2001:407) suggest that a combination of the following strategies will enhance validity:



prolonged fieldwork, multi-method strategies, participant verbatim language, mechanically recorded data, member checking, participant review and low inference descriptors. Low inference descriptors ensure that precise descriptions from interviews and documents are made. I made use of these strategies to ensure high internal validity in this study.

As mentioned by Merriam (1988) in Creswell (1994:158), the intent of qualitative research is not to generalise findings, but to form a unique interpretation of events. McMillan and Schumacher (2001:414) describe extension of the findings as enabling others to understand similar situations and apply these findings in subsequent research or practical situations. In this study extension of the findings may be applicable to other foundation phases of similarly resourced independent schools and the findings may have relevance to the intermediate and senior phases at the school where the study was conducted.

### **3.5 ETHICS**

Creswell (1994:165) is of the opinion that researchers have an obligation to respect the rights, needs, values and desires of the informants. The following safeguards were employed in this study to protect the participants.

- The research objectives were clearly discussed with the adult participants
- Written permission to proceed with the study was procured from the Headmaster and the parents
- Research findings were made available to the adult participants
- Anonymity of the participant was taken into account and for the purpose of reporting the following abbreviations were used:

Head of Department: one participant (Semi-structured one-to-one interview)	HOD
General education teachers: four participants (Focus group interview)	GET1, GET2, GET3, GET4
Learners: four participants (Focus group interview)	L1, L2, L3, L4
Learning support teachers: three participants (PMI document)	LST1, LST2, LST3

### 3.6 CONCLUSION

Inclusion is relatively new in South Africa and the research base is still developing (Lockhart Walton 2006:121). This study is an exploration of the learning support teacher's endeavours to promote an inclusive model of education in the foundation phase at an independent school. The research follows the qualitative paradigm using phenomenological methodology. The limitations of this research have been taken into account (1.3). Despite any shortcomings the data gathered is considered useful. The findings and discussion of the data follow in the next chapter.

## **CHAPTER 4 EMPIRICAL STUDY**

### **4.1 INTRODUCTION**

This chapter provides a discussion of the findings of the study. Information was gathered from interviews, observations and documents. Discussion of research results and interpretation of the data is made against the backdrop of the literature review. Before discussing and interpreting the data it is necessary to describe the inclusive learning support programme that is enmeshed in this study.

#### **4.1.1 EXISTING LEARNING SUPPORT PROGRAMME**

I am currently involved in developing an inclusive model of education at an independent preparatory school for boys in Johannesburg. My point of departure in initiating this learning support programme is that support should be based on a social systems model of support (2.2.1) and given within the classroom environment. The benefits of the learning support programme should be received by all learners, general education teachers, the Head of Department and parents. I am mindful of the fact that support comes in a myriad of forms and have made a conscious effort to match the type of support I offer with the needs of the recipients. Four basic types of support have been identified according to Griangreco & Doyle (2007:262):

- Resource support which includes i) tangible material: adapted equipment; ii) financial resources; ii) informational resources: professional literature; iii) human resources: parent volunteers and peer tutors.
- Moral support which includes interactions that validate the worth of people's efforts.
- Technical support this includes concrete strategies, methods, approaches and ideas.
- Evaluation support that includes assistance in collecting and presenting information that allows the programme and support for learners to be monitored and adjusted.

The support programme that I have implemented is described using these four basic categories of support.

#### **4.1.1.1 Resource support**

The resource support that I have offered has been confined to informational resources in the form of professional literature. I researched information regarding the required components of an IEP (2.3.5) and using these resources I compiled an IEP framework in conjunction with a general education teacher and the Head of Department. I involved the general education teachers and head of department in the development of a customised IEP with the intention of making the IEP part of the teaching process rather than a document that has been generated and enforced by an individual. I had further involvement with IEPs as I have assisted general education teachers identify and update tangible goals for learners in Numeracy and Literacy. In one instance I accompanied a general education teacher in interviews with the learner's parents where we jointly introduced the concept of an IEP to the parents and at a later date revised the learner's IEP goals.

I gathered literature and created a simple booklet containing professional literature regarding the use of facilitators in an inclusive setting. In this study the facilitator is an unqualified teacher who comes into the general classroom to assist learners. It is the duty of the general education teacher, learning support teacher and Head of Department to design and guide the activities of the facilitator. This literature resource provides an overview of ways in which to create a productive partnership with a facilitator. I hoped that the vital principles of training the facilitator and working as a collaborative team would form the backbone of the impending introduction of a facilitator into the support programme.

I gave resource support to the Head of Department in the form of professional literature to substantiate the advantages of providing learning support within the classroom (2.2.4). She made use of this to generate awareness of the need for inclusive practices to be built into the school processes and to motivate the introduction of an additional learning support teacher's post for the following school year (2009).

#### **4.1.1.2 Moral support**

Moral support engenders authentic trust, promotes a healthy work environment and creates an atmosphere where perspectives can be shared without fear of put-downs,

criticism or breaches in confidentiality (Griangreco & Doyle 2007:262). The positive effects of moral support have become more apparent as the learning support programme has gathered momentum. Active listening and non-judgmental acceptance of my colleagues have been fundamental principles that undergird the moral support that I aspire to generate. By actively listening to the hopes, plans, fears and frustrations experienced by the Head of Department and general education teachers in their endeavours to create a more inclusive educational setting I have had the opportunity to convey moral support in nonverbal and verbal forms. I have been conscious of making my support go beyond mere words and opportunities have arisen where I have had the opportunity to 'walk the talk' in my support of colleagues. This direct involvement with colleagues and the ensuing two-way moral support has been an enlightening and often humbling experience. For reasons of confidentiality examples of moral support have not been cited.

#### **4.1.1.3 Technical support**

Technical support refers to concrete strategies, methods, approaches and ideas. With regards to this study the technical support that I have offered has largely taken the form of collaborative consultations, demonstrations, and modeling. I have found demonstrations and modeling particularly effective as this form of support is rooted in reality and is non-threatening. The ensuing acquisition of new skills can be adopted or adjusted to suit the needs of the general education teacher and learners.

##### *a. Numeracy*

With regards to Numeracy my focus has been on providing learning support in problem solving lessons. According to Pettipher (1996) in Lomofsky et al. (2007:93), the ability to solve problems is at the heart of mathematics. For learners to be successful problem solvers requires teacher support, motivation and encouragement (Lomofsky et al. 2007:93).

A cornerstone of my learning support in Numeracy has been to embody an attitude of enthusiasm towards problem solving to inspire the development of a positive attitude in general education teachers and learners towards this learning area. During the weekly forecast meetings that I attend with the general education teacher we decide on the area of problem solving to be covered. Thereafter, I source appropriate material for the

lessons. This material is shared with the general education teachers with the expectation that they would subsequently be able to generate their own material. In finding or generating problem solving tasks I am aware that the problem presented should be meaningful, credible and preferably within the learner's realm of experience. An example of an appropriate problem solving activity for a Numeracy lesson is included in Addendum E.

Three basic collaborative co-teaching format variations have been used in the problem solving lessons. They include: interactive teaching, parallel teaching and alternative teaching (2.2.3). The most predominant variation of collaborative co-teaching used has been parallel teaching. During these lessons the configuration of the groups is determined by the general education teachers. The groups vary and we do not assume exclusive responsibility for a specific group of learners. At times the learners are given the opportunity of working in smaller groups or pairs and during these lessons an interactive co-teaching model is adopted. When a general education teacher wishes to reinforce or introduce a concept to a specific group of learners, the alternative collaborative co-teaching format is used. In this case I generally work with one big group whilst the general education teacher is busy with a small group of learners.

In my interactions with general education teachers I have tried to make them aware of the merits of presenting the problem both in writing and verbally to accommodate visual and auditory styles of learning. I have encouraged the learners to state the problem in their own words and to discuss solution strategies with other member of their group. By allowing the learners time to discuss the problem with their peers, they gain insight and understanding of numerical concepts and come to realise that their peers are a valuable source of support. This reinforces the worth of instilling a sense of community within the classroom where the emphasis is on belonging, alliances and mutual support (2.3.2) rather than competition and individualism. In some classes a strong sense of community prevails; in other classes the concept appears to be in the early stages of development.

During problem solving support lessons I have encouraged the use of manipulative material or drawing as a means of identifying solution strategies. The cognitive development of learners in the foundation phase of learning falls largely within Piaget's concrete operational stage of cognitive development. Within this stage learning is

optimised by active engagement in the learning process and by creating opportunities for learners to experiment and discover things for themselves (2.3.4). This would also strongly appeal to the learners with bodily-kinesthetic or spatial/visual learning styles. My presence and support serves as a reminder to the general education teachers to encourage drawings and manipulation of materials. An example of drawings used as a means of solving problems is included in Addendum F.

When I plan a problem solving lesson for the class I am aware that differentiation of the tasks may be applicable. If the groups are homogeneously arranged, the number range in the task may be adjusted. Often the groups are heterogeneous and in these instances I may provide an extra sequential problem solving task, but this is seldom the form of extension that learners seek. Therefore, I have started sourcing puzzles, magic squares, tessellations, origami and calculator exercises which are appealing, promote the identification of number patterns and relationships and develop fluid numerical thinking. By differentiating the problem solving tasks and by making peer support and teacher support a given in the classroom, I hope to make success in Numeracy attainable for all learners. I consider it an important form of learning support to motivate learners by building success into activities thus arresting the vicious cycle of failure that so many learners experience (2.3.3).

Space and Shape work is part of the Numeracy curriculum (1.2.3.1) and learning support is at times structured into this area of learning. The learners enjoy the relaxed atmosphere that these lessons afford and it provides an opportunity for a different selection of learner to excel and offer support to their peers. For these lessons I sourced the material and helped manage the interactive, practical dimension of the lessons. In assessment of the learners' performance the general education teacher and I had an opportunity to recognise the skills and efforts of learners and at times the correlation was made between learners experiencing difficulty in Space and Shape work and those receiving or in need of occupational therapy.

My support in problem solving extends beyond supporting learners and encompasses support for general educational teachers in establishing work habits and generating curriculum material that dovetails with inclusive educational practices. In my support of learners I am conscious of Vygotsky's zone of proximal development (2.3.4) and aim to

increase cognitive competence by providing support or scaffolds. However, as the learner demonstrates increasing proficiency, supports are progressively withdrawn to promote independence and mastery.

#### *b. Literacy*

The support that I have offered in Literacy has largely been confined to THRASS (1.6.6). The interactive collaborative co-teaching model has been used most extensively during these lessons. I often initiate the lessons. Thereafter, the general education teacher and I interact with the learners who have the benefit of two teachers to provide assistance.

At times the content of the learning support lessons focuses on the key phoneme being dealt with in class for that specific week. When necessary I revise phonemes that are part of a previous syllabus or are not dealt with specifically. Learners should develop their skills in analysing words by breaking them into phonetic components and synthesising and blending the phonetic parts to form whole words. Whilst there are definite merits attached to direct phonic instruction, the lessons run the risk of being stilted as vocabulary is basically restricted to words that can be sounded out. As such this does not always hold the learners' attention. In an effort to appeal to learners' interests, I have made an effort to blend the instruction of phonics with a rich assortment of literature, activities and topics of general interest. To this end I linked some THRASS learning support lessons to the topics covered in Life Skills themes: Arbor Day, African animals, Animals from the Arctic, Insects and Giants. I also based some lessons on the prescribed storybook which is currently being read by the teacher to the class, for example *The BFG* by Roald Dahl and *Just So Stories* by Rudyard Kipling. By integrating THRASS into the broader curriculum (i.e. cross curricular teaching) I aim to make it easier to apply and generalise phonic knowledge than it would have been if the sounds had been taught in strict isolation.

I introduced charades, interactive cards and board games into my support lessons. Learners enjoy the element of fun in these lessons and it has proved an ideal opportunity for learners to work in small heterogeneous groups. In many cases it allowed learners with barriers to learning the opportunity to experience success in a lesson. Both Piaget and Vygotsky work from the premise that learning and development occurs via social interaction and active engagement (2.3.4) and the success of these interactive



learning support lessons reinforces the need to factor social interaction and active engagement into the learning support.

At times I supported the general education teacher in teaching comprehension skills. In these instances the interactive collaborative co-teaching model was used and the lessons were given by the general education teacher. The teacher gave the instructions and explanations to the whole class. Thereafter, we both gave support to the learners. It was possible to guide learners within a general classroom situation. The general education teacher and I were able to provide the scaffolds of support for the initial questions and could withdraw and encourage the learners to apply their skills independently. This form of support is in line with Vygotsky's zone of proximal development (2.3.4) whereby increasing cognitive competence and independence are mutual goals.

On a general level I supported the development of Literacy by taking responsibility for ordering new reading books for individual classes. I identified the material and liaised with the relevant agents to procure the readers. Whilst this intervention appears to be minimal, the effects of having interesting, appealing, age appropriate reading material has positive ripple effects felt by learners, general education teachers and parents. On a small scale this highlights the systemic nature of inclusive support. It underscores the need for professionals to consider that the learner is part of a system and that multiple contexts influence the learners' development (2.3.6). An example of the selected age appropriate, high interest reading material is attached in Addendum G.

#### **4.1.1.4 Evaluation support**

Flexible, ongoing assessment is a core tool in a general classroom. Measuring and evaluating learners' progress towards learning goals enable teachers to adjust their instruction to meet individual learners' needs. Ongoing assessment is also a way of helping learners to self-regulate and self-manage their own learning processes. It is a way of raising their awareness and understanding of their own strengths, weaknesses, preferences and styles (Griangreco & Doyle 2007:132).

Assessment in an inclusive setting is essentially a shared process (2.3.4). By working in a general classroom as a learning support teacher I am able to gather information on

learners in a comprehensive manner and then discuss my finding with the general education teacher. My assessments are based on observations of the learners within their general classroom which is their natural learning school environment. I am also in the privileged position of being involved in their general curriculum work. This allows me to make in-depth, informed assessments of learners against the backdrop of my pedagogical knowledge. When conveying evaluative support to the general education teacher, I am conscious of the fact that we are in a collaborative co-teaching relationship and that our skills should complement each other. In many instances my assessments concur with the general education teacher and at times I have directed the focus to specific learners. By working in this manner I have assisted in identifying learners who:

- need multidisciplinary support and I have suggested referrals to the school's speech or occupational therapists.
- need to work on an IEP.
- no longer need individual out of class support lessons funded by parents. These learners have been given the opportunity to work entirely within the classroom with learning support from the general education teacher and the learning support teacher.
- may benefit from additional in class support in the form of a facilitator (4.1.1.1).

Although in inclusive settings there has been a shift from traditional, norm referenced standardised testing, I felt it beneficial to back up my observations and performance assessment (2.3.4) with an annual standardised spelling assessment. I evaluated spelling using the UCT standardised assessment. I administered the test to whole classes and then ranked the learners' performance and provided a standardised spelling age for each learner. This information was given to the general education teachers and was discussed at the weekly multidisciplinary meeting in the presence of the Head of Department and speech therapist. In most instances the results confirmed our observations and performance assessment results. However, it provided a worthwhile opportunity to praise two learners who had achieved substantially higher than expected and it highlighted the severity of barrier to learning that two other learners experience. In the latter instances the results convinced us of the need to implement more specialised support. Moreover, it encouraged the one general education teacher to liaise more purposefully with the learner's therapist who works independently and is paid by the respective parents.

## 4.2 INTERVIEWS

I conducted a semi-structured one-to-one interview with the Head of Department and focus group interviews with four general education teachers and four learners respectively. In the interviews with the adults the following key research questions were prepared and asked:

- How can learning support be structured and implemented in the classroom?
- What specific support activities will the learning support teacher use in the classroom?
- What are the challenges and advantages of offering learning support in the classroom?

Probe questions were added to expand upon the information.

Learning support that is given within the general classroom is not limited to a fixed group of learners. The group configuration varies according to the needs of the learners, the area of learning and the objective of the lesson. With regards to the sample of learners I chose four data rich learners who have received learning support within a general classroom. A sample of four boys who are in Grade 3 between the ages of eight and nine years was used. The key questions were adapted in accordance with the learners' age and understanding. Their key questions were:

- What do you like about learning support in the classroom?
- What would you like to change about learning support in the classroom?

The interviews were mechanically recorded and transcribed verbatim. The transcripts were read several times in their entirety in order to get a sense of the whole. The data were analysed and themes or categories emerged. According to De Vos et al. (2006:338), this process involves winnowing the data and reducing it to a small, manageable set of themes. Finally, the data were interpreted against the backdrop of the literature review in order to generate a broad, composite overview.

### **4.3 SEMI-STRUCTURED ONE-TO-ONE INTERVIEW WITH HEAD OF DEPARTMENT**

#### **4.3.1 SELECTED TRANSCRIPTIONS**

##### **4.3.1.1 Structure of support**

Claire: How can we structure learning support, from a management side, so that it can be implemented in the general classroom?

HOD: I think it's very important firstly that it is done in the classroom situation. In the past you know individual boys have been taken out of the classroom or small groups have been taken out of the classroom and I don't think that's the ideal way to do it. It's giving support to teachers as well as boys in the class. Having two teachers in the class supporting the boys whether its two small groups or teaching together it's far more beneficial than taking groups out and making them separate entities. (*Relaxed and calm*)

Claire: Is there a particular grouping that you prefer, or do you like the groups to change?

HOD: Well me personally, I like the groups to change. I think it benefits the boys having different teachers teach them and sometimes having a strong ability together or a mixed ability together and it also depends on the activity. Sometimes in Maths it's nice to sift the boys into strong ability and another teacher works with the weak ones, but that also changes. I think it just depends on the teacher and what the needs are at that moment.

Claire: And the boys themselves do you think that they have a preference for a particular grouping?

HOD: From what I can gather I think that they like to be mixed and change around week. They don't like to be with the same group and the same teacher every week. They actually asked to be changed.

##### **4.3.1.2 Specific support in Numeracy and Literacy**

Claire: What specific support do you think the learning support teacher can provide to learners in the classroom?

HOD: I think that it's very important for the learning support teacher to come in and revise and consolidate concepts with the teacher. And also just to bring in something different into the classroom to bring in some fun games and add another dimension to the teaching.

Claire: And with the games that come in do you think that they are of academic worth for those children who are experiencing barriers to learning?

HOD: Definitely they are brilliant (*Emphatic*) and I've seen how much the boys love it especially the weak boys because it's not this strict academic curriculum that they've got to follow and sit down and write they can actually learn about and consolidate concepts in another manner for them, which I think is important.

#### **4.3.1.3 Challenges that a learning support teacher faces**

Claire: The challenges that the learning support teacher encounters in putting in a more inclusive model, how have you had to try and support the introduction of that?

HOD: I think that the first thing is the timetable especially at \_\_\_\_\_ where we've got a six day cycle and you've got to fit support teaching in with the different classes. Because there's quite a lot that the school teacher has to do and cover and if the support is all in the morning then it's quite difficult to arrange that.

Claire: So do you think that it would be easier if it were stretched over a longer time into the later part of the day?

HOD: I think if we had more support teachers so that if each Grade had a support teacher if possible, or two Grades have a support teacher ... I think also from a support teacher's point of view, I think that in the beginning it's quite difficult, some teachers feel quite threatened by having a support teacher in, so you have to work through that – one of the constraints. And obviously budgeting for it, (*Smiles*) you know not everyone is used to the whole idea of support and the groups in the classroom and how valuable it is. So to get that into the academic budget is a difficult task.

Claire: And to motivate for that. How do you think you could best motivate for more budget allocation?

HOD: Get feedback from the teachers. I think that the feedback that we have got at the moment from the teachers, there has not been one negative. It's been so positive and every single teacher that has had the support just wants it and more and I think that this has definitely made a huge impact. (*Makes eye contact*) And also just to come into the classes and see what is going on.

Claire: And then any other challenges that you could be aware of for implementing it with new teachers or improving it with existing teachers.

HOD: I think that you could set up almost like a contract – not a contract, but a set of views between the teachers. Because as I say I think that they can initially feel threatened that perhaps the support teacher is coming to take over and to criticize. Just set the ground rules: I'm just coming in to support, I'm not criticizing, I'm never going to do an appraisal on you. (*Speaks rapidly*) That sort of thing, just to reassure them. And then maybe to see it actually happening before you come in. To actually observe some other people doing it before you come in.

#### **4.3.1.4 Advantages of learning support in the classroom**

Claire: And the advantages?

HOD: To discuss children there and then that you are concerned about, to get a different point of view. For support teachers to pick up things that maybe you as a class teacher are so involved in the whole teaching aspect of your class that you don't see the little things that are happening and for her to pick up and to remind you about what's happening and also to give advice and add a different dimension to your teaching. You know two people in the classroom that don't teach the same just makes it more fun for the boys and more successful for the boys.

Claire: Great, anything else that you'd like to pick up on or add to?

HOD: I just think it's brilliant. The support in the class is just making so much more sense than sending individual boys out and I think it's so much better for the boys that this is taking place.

### **4.3.2 INTERPRETATION OF DATA**

#### **4.3.2.1 A paradigm shift from a medical deficit model to a social systems model**

The Head of Department is clear in her desire to shift from the medical deficit model of support in place at the school to a social systems model. She is driven to provide support that best serves the learners. This is underscored by her statement "The support in the class is just making so much more sense than sending individual boys out, and I think it's so much better for the boys that this is taking place." Her desire to make learning support an integral, working part of the school day is apparent and whilst she is cognisant of the difficulties experienced in timetabling support lessons, she was proactive in determining possible solutions to this challenge. Her response to the

timetabling challenge was to increase teachers who could provide learning support: “I think if we had more support teachers so that each Grade had a support teacher or two Grades have a support teacher.” This highlights her desire and intention to overcome the structural challenges of implementing learning support that embodies the social systems model.

#### **4.3.2.2 Groups**

She expressed a preference for flexible grouping of learners driven by the changing needs of the teacher and learners rather than groups exclusively determined by academic performance. Her liking for dynamic grouping appeared to be grounded in her own commitment and adherence to inclusive educational practices, but was also substantiated by the learners’ expressed wish for the groups to be mixed and rotated. An element of self-determination is evident in heeding the learners’ opinions regarding the composition of groups. She is comfortable with the rotation of groups and the ensuing shared responsibility of learner progress.

#### **4.3.2.3 Learning support activities**

With regards to the learning support activities, a need for a balanced but varied programme was conveyed by the Head of Department. She emphasised the need for consolidation of concepts, but also expressed her desire for “something different” and “fun games.” This suggests that she supports the notion of extending the core learning support lessons across the curriculum and was aware that the curriculum may have to be adapted to suit diverse learners.

#### **4.3.2.4 Collaboration and communication**

The Head of Department’s working knowledge of collaborative co-teaching formats (2.2.3) is apparent in her reference to “two small groups, or teaching together”. This indicates that she is au fait with both interactive teaching and parallel teaching. She is secure in her belief that two teachers are better than one: “You know two people in the classroom that don’t teach the same just makes it more fun for the boys and more successful for the boys.” As such she is a good role model for effective collaboration within the learning support programme.

The Head of Department highlighted the merits of good communication skills in establishing and sustaining learning support within a classroom environment. She proposed that the relationship between the general education teacher and learning support teacher may be nurtured and fears allayed by “setting the ground rules” at the outset of the partnership. Communication also featured strongly as a means of motivating for increased budget allocation for the learning support programme. She is of the opinion that “feedback from teachers” has had a “huge impact” on developing and promoting awareness within management of the importance of learning support.

The Head of Department coupled the need for good verbal communication with the need for positive non verbal communication in the form of authentic modeling. She felt that it would be beneficial for general education teachers to “see it actually happening before you come in” and she welcomes management to “come into the classes and see what is going on.”

#### **4.4 GENERAL EDUCATION TEACHERS’ FOCUS GROUP INTERVIEW**

##### **4.4.1 SELECTED TRANSCRIPTIONS**

###### **4.4.1.1 Structure of support**

Claire: How can learning support be structured and implemented in the general classroom?

GET3: A good way of doing it is when you actually have your ability groups ... It seems to work a lot better because then the boys are functioning within their own ability groups.

GET4: What’s also nice though (*Contemplative*) is when we’ve worked with mixed groups and what has been nice about that is that the weaker boys have been able to feed off the stronger boys and they’ve actually been able to get different ideas and I think it has actually been a good way to share ideas.

Claire: So do your groups change?

GET1: I prefer them to change. (*Nods*)

GET2: Ja, I do too. One time I’ll have the strong and the next time you’ll have them.

GET4: I think that they would naturally change because you’ve got some boys that are stronger at Maths, but weaker English and vice versa. So I think that your grouping would have to change according to the subject that you’re busy doing.



GET3: It also depends on the reason you're doing it because some lessons you want to specifically focus on your weaker boys and make sure they have the concepts other lessons you prefer to have a mixed group because ... you can get your brighter boys to help your weaker boys ... and sometimes boys have actually got different aptitudes so if you do a different activity sometimes you find a weaker boy helping a so called brighter boy and it's so good for both boys. For the weaker boy to realize you know actually I can help here and for the brighter boy to be able to learn to accept help as well.

Claire: And then with THRASS the structure and implementation of that?

GET1: I think that it's nice because even when we work as the whole class there's two of us permanently walking around helping them so there's not just one teacher being drawn to different needs all the time.

GET4: What I'd love to see actually, I don't know how you'd work the timetable, but to be able to get the therapists into the classrooms as opposed to boys leaving the classroom. Then actually that would be better because then the boys are still learning in the context. So if there was a way that we could get more therapists into the classroom rather than the boys leaving the classroom. That would be brilliant.

Claire: What do you think of the timing of the support lessons?

GET4: I think it should be early in the morning. All the boys are fresh then and so they're still available to learn.

GET1: It's also the time when we do our Maths and I think it should be first thing in the morning.

#### **4.4.1.2 Specific support in Numeracy and Literacy**

Claire: OK and then is we if go onto the next one. The specific support that the learning support teacher provides in Numeracy and Literacy, can you think of anything that stands out?

GET4: I think we all tend to get honed in on the mechanics of the THRASS and you implement the THRASS, but you've made it into real life situations you've been able to come in for example when there's been Olympics on and link the THRASS to the current events at the time.

GET3: I think also the fact that you come in and possibly sometimes as a teacher you don't have enough time to think of new games, new puzzles and new ways of

teaching it (THRASS) and I know my boys love it when you come in and you do BINGO and they're over the moon. *(Laughs and looks at colleagues)*

Claire: So do you think there is academic worth in the games and puzzles?

GET1: I think they learn a lot from it as well, because they don't think they are actually learning. They learn more when it's a game.

GET2: It's a less stressful situation for the weak ones because it's a game.

Claire: And apart from the games the actual THRASS support, how do you think it has helped the boys?

GET1: They are thinking of more words, it's not just their spelling words it's words that they actually come across- like cricket, how do you spell cricket? What rhymes with cricket?

GET4: ...It's just given me the time to actually sit one on one and show him how to track and show him words and all of a sudden sort of seeing this light bulb going on whereas when you're teaching a whole class you can't.

#### **4.4.1.3 Challenges that a learning support teacher faces**

Claire: And then the challenges of trying to support within the class anything regarding that?

GET1: I think maybe the one area that we need to remember to look at is those boys needing extension work. It would be quite nice sometimes to maybe have a lesson where we focus on them, where we are giving them the prime time.

GET1: Ja, because we tend to always be looking at our weaker ones.

Claire: OK.

GET4: I think the first thing would probably be the timetable and how to timetable that in, would be a major challenge I think.

GET3: And also making sure as a teacher that you're organized that when a support teacher comes in you're actually doing work that she's needed to help with – you're not writing down homework or changing books so you don't waste time, so it's actually valuable input.

Claire: And similarly the person that's supporting needs to be organized

GET3: ...And making sure that you actually do meet before hand to make sure of where you're going, what you're going to do in the lesson. And also afterwards it's good to reflect and to say what you did today was really excellent I could see it helped or maybe next time could you do this.

GET4: I think one of the other challenges could be I mean we all work extremely well with you and we have a really dynamic team. If you had a learning support teacher that was going to be very fixated on her own ideas or didn't have a good rapport with the class teacher that might create a few challenges within its self.

*(Takes elbow off the table and places hands in her lap)*

Claire: So you've got to build upon the relationship and that's sort of the foundation?

GET4: Yes definitely.

#### **4.4.1.4 Advantages of learning support in the classroom**

GET3: And sometimes the nice thing is that I've seen with Space and Shape the weaker boys have actually got different aptitudes so if you do a different activity sometimes you find a weaker boy helping a so called brighter boy and it's so good for both boys.

GET2: Like \_\_\_ in my class he's brilliant at Space and Shape and it's something he's so confident about and looks forward to and he can help the boys.

Claire: When we do our THRASS typically we've been doing it with one teacher leading and then both supporting after that. How have you felt that's worked?

GET4: I've actually loved that because you come in with different ideas. I think I personally sometimes get stuck with how I normally do things so you have been able to come in and give a different slant on the whole approach to the THRASS. You bring new ideas into the lesson and then I have been able to support you which has been very refreshing. *(Smiles and makes eye contact with me)*

GET3: And also what's been so great is I find I've got quite a few weak boys and it's just been giving me time to actually sit one on one showing him how to track and showing him words and all of a sudden sort of seeing this light bulb going on whereas when you're teaching a whole class you can't.

GET4: And I've been able to identify boys that I thought were doing OK in a particular area and actually realizing oh hang on they're actually not coping at all or they're needing assistance and in the past I haven't picked it up. So it's been very beneficial because I've been able to step back and be able to observe more and assist you and get input on specific boys.

Claire: So do you think that there's academic worth in the games and puzzles?

GET2: I think that the boys really like those and they're very important, the boys look forward to them and ja, I think the games are very important. My boys in particular enjoy them.

GET1: I think that they learn a lot from it as well, because they don't think that they are actually learning. They learn more when they are playing a game.

Claire: And then just to finish off the advantages. We have spoken of some of them incidentally are there any that you'd like to highlight?

GET1: I think that if you just look at THRASS as one example, not only are the boys benefiting hugely, but also as a teacher I mean I've learnt so much more having you in the classroom you can see a different way of teaching.

GET3: I also think one of the great things is because teachers have got different personalities, different teaching styles, that you can possibly come into a classroom and give praise to a child in a different way and actually build up their confidence and I think some children react differently to different types of teaching.

Claire: Absolutely.

GET3: It's really great to see and also the teacher we see the child differently when they interact with a different teacher.

GET4: That's been one of the huge advantages for me this year is with the one or two difficult boys that I've got in my class. That you've been able to come in and I've been able to step back and then just get a bit of breathing space myself and then I'm in a more positive frame myself to cope.

Claire: And then with trying to accommodate everyone in the class do you think your professional training has stood you in good stead? Do you think you need more training, do you think the conference we went on was beneficial.

GET3: I think one of the things is that you get your basic training first, but I think once you're in the classroom and you're actually dealing with children one on one that's when you really start learning. And it's a case of you're continually learning you never really know enough and all the conferences and the courses and also just interaction with other teachers sharing ideas and especially with you coming into the classes it's a continual learning process for us as well.

#### **4.4.2 INTERPRETATION OF DATA**

##### **4.4.2.1 A paradigm shift from a medical deficit model to a social systems model**

The general education teachers are positive in their approach to the introduction of collaborative co-teaching and are supportive of the move toward a social systemic model of support. They have embraced the need to address the systems impacting on barriers to learning and by working collaboratively, they have been able to: increase learning opportunities, engage in effective objective assessment and stimulate their own professional development. One general education teacher expressed a desire for a greater input into providing support in the classroom “So if there was a way that we could get more therapists into the classroom rather than boys leaving the classroom, that would be brilliant.”

##### **4.4.2.2 Groups**

The general education teachers make reference to the use of groups which are in keeping with basic collaborative co-teaching variations including: interactive teaching, parallel teaching, and alternative teaching (2.2.3). They use group configurations which are flexible and determined by the needs of the learners, the area of learning and the objective of the lesson. Groups are thus being used to cater for differentiated learning in the area of Numeracy and are also seen as facilitating the opportunity for individual growth in that different learners are afforded the opportunity to excel and receive positive reinforcement from their peers and teachers. When homogeneous grouping are used, the general education teachers and learning support teacher assume joint responsibility for all learners by rotating the groups with which they work: “One time I’ll have the strong ones, the next time you’ll have them.” The general education teachers identified the need for the learning support to take place early in the day when the boys are “fresh and still available to learn,” and felt that learning support should fit into the existing daily routine of doing Numeracy “first thing in the morning.” Timetabling, possible personal clashes between the general education teacher and learning support teacher and a need for planning time were noted as possible challenges of teaching in groups in a collaborative fashion.

##### **4.4.2.3 Learning support activities**

An inclusive learning support programme has many facets and the general education teachers described their experiences of a broad spectrum of learning support activities.

An overarching need for new and different activities that make learning fun was identified by the general education teachers. To this end games and puzzles proved to be popular forms of learning support activities and were considered to be of academic worth by the general education teachers. Games were also favoured for the opportunities that they provide for the weak learner to learn in a “less stressful situation.” Positive mention was made of learning support activities that are based in reality “... you’ve made it (THRASS) into real life situations.” The general education teachers liked learning activities that afford learners with different aptitudes a chance to excel. To this end they endorsed the Shape and Space activities. Learning support activities that facilitate the revision of fundamental skills including “showing him how to track” were identified as being “great.” A need for additional learning support activities that offer extension to learners was voiced by a general education teacher and this underscores the notion that inclusion is for all learners.

#### **4.4.2.4 Collaboration and communication**

The general education teachers have embraced several principal features of collaborative co-teaching. They acknowledged the advantages for learners and teachers of having two teachers in the general classroom. They also saw the merging of “different personalities and different teaching styles” as an opportunity to appeal to diverse learners. They welcomed the increased instructional opportunities that collaborative co-teaching affords and are considering ways to improve the activities in order to accommodate learners more effectively.

The need for good organisational skills and planning were raised by the general education teachers. Cooperative planning or co-planning is an essential part of effective collaborative co-teaching and it takes time, good communication, trust in each other’s professional competence and commitment to realise this effort (Walther-Thomas et al. 2000:199). The general education teacher’s comment: “Make sure you do meet beforehand” suggests that co-planning is seen as a non negotiable in the quest to create an inclusive model of education. A general education teacher’s statement: “Afterwards it’s good to reflect” suggests that this collaborative team is able to communicate in an open, constructive manner which will ultimately strengthen the development of the team and the services they deliver.

Developing effective co-teaching relationships takes time, skills and commitment from partners (Walther-Thomas et al. 2000:203). The importance of developing a working relationship that is founded on mutual respect and similar aspirations regarding inclusion is highlighted by a general education teacher's statement: "If you had a learning support teacher that was going to be very fixated on her own ideas or didn't have a good rapport with the class teacher that might create a few challenges." For the long-term success of co-teaching it is imperative that relationships be nurtured and developed.

#### **4.5 LEARNERS' FOCUS GROUP INTERVIEW**

##### **4.5.1 SELECTED TRANSCRIPTIONS**

###### **4.5.1.1 Challenges that a learning support teacher faces**

Claire: If you could change something if you could say let's make it even better. How could we change things?

L1: We could, we could improve our knowledge in THRASS by making our lessons move up to three lessons a week.

L3: Or another lesson with half THRASS and half problem solving.

Claire: What else could we do? Think how else we could change it. What things would you like to stop and what things would you like to start?

L1: Ah, I'd like to stop um doing the same thing over and over again. We keep on doing 'ant' and all of those and doing words. (*Bored facial expression, monotone*)

Claire: So you are tired of looking for words and finding words on the boards.

L2: Make new games up.

Claire: More games.

L3: You can use the same charts but instead you just change it so if you get it wrong you move back.

Claire: So more games and different games as well.

Claire: And the problem solving. How can we make it better for you?

L2: More and different like funnier ones.

Claire: You like the fun ones.

L4: Like cutting up the chocolate. That makes my mouth water.

Claire: Me too (*Laughs*) ...Is that all?

L4: I've got something. Do more words on horses and ponies. (*High pitched voice*)

Claire: Why more words on horses and ponies.

L3: He loves horse and ponies.

Claire: You know that's a good thing if you learn about things that you're interested in then it makes it more fun.

L1: I also like them.

L2: I'm interested in Maths because I want to be a helicopter pilot. (*Shifts to upright position*)

Claire: Really, brilliant. So do you think we should try and make problem solving things about what you're interested in?

L1: Animals.

L3: Dolphins. I love dolphins.

L4: Ponies.

L1: Learn more things about how people survive.

L3: Like wars and things.

Claire: So real life things that happen.

L3: Not make believe. (*Grimaces*)

.

#### **4.5.1.2 Advantages of learning support in the classroom**

Claire: I want you to think about the things that you like about having problem solving and THRASS support in the class.

L1: I like all the games.

L4: Me too. (*Babyish voice*)

L3: I like it that we work in groups and that we get to know each other more.

L4: Hey I was going to say that too.

Claire: So you like working with people. Is it different people that you get a chance to work with?

L3: Well, ja, because if you sit in a group sometimes if you are all talking then they choose you and you because you're far away from each other. Sometimes you get to choose who you want to be with.

Claire: And if you choose do you choose the same person each time or do you change.

L3: I mainly choose my friends like \_\_\_\_ and \_\_\_\_.

Claire: What's your best part about learning support?

L4: Having fun.

Claire: Having fun, OK what makes it more fun if there are two teachers in there? What's the fun part?

L2: They can give you more different answers.



Claire: They can give you more answers; they can help you with answers – stunning.

L1: And they also, they also mean that you don't have to wait in one huge bunch you can go into different groups.

L3: OK so not one huge bunch, what's better about being in a small group?

L1: There's not much people and people don't fight that much. Like I don't want to be with this guy, he sucks, and all of this stuff.

Claire: How's it for you L4, when you've got two teachers in the class?

L4: More easier.

Claire: Easier, good.

L2: Way easier. (*Loudly and emphatically*)

Claire: Why do you think it's easier?

L2: Because you can go to two teachers to get your book marked.

Claire: Ah that's a good thing.

L4: Two teachers to ask things.

L3: Like you can get both of their opinion and then maybe both of them are wrong so you can think of one like in between and you might get two bits of information and that might help you with your answers.

Claire: Ah, two hints and then it can help you get there. You boys are champions.

L2: I like it when you are allowed to work on the carpet with groups. And with groups if you have a small group there's not as much noise as a big group.

Claire: OK, good thinking and when there's not as much noise how does that help you?

L2: It can help you better and guys like don't shout at each other and tell you what to do.

Claire: Listen to what he's saying they don't tell you what to do. So how do they help you if they don't tell you what to do?

L2: Well if they shout at you then you can't concentrate properly and you can't write stuff down.

L3: And when it's like if you are minus-ing and you don't know the sum and you have to use your hands (*Demonstrates by raising fingers*) and they go hey and then you look back and then you forget your number.

Claire: Oh, I see what you mean. OK so you prefer the small groups.

L4: I like more working together.

Claire: More working together. What's the good part of working together?

L4: When you have different people in your group you get more different ideas.

## **4.5.2 INTERPRETATION OF DATA**

### **4.5.2.1 A paradigm shift from a medical deficit model to a social systems model**

The learners articulated several merits of this form of learning support which is aligned to a social systems model of support. They seem to have taken the shift from a medical deficit model to a social systems model in their stride. However, many learners lack knowledge of the medical deficit model and, as such, they are unable to draw or offer comparisons.

### **4.5.2.2 Groups**

The learners expressed a preference for working in groups that are flexible and small in size. Their liking of a particular group composition is rooted in social and practical issues rather than academic criteria. From a practical perspective learners appreciate the fact that with group teaching two teachers are available to mark work. They also found the resultant reduction in noise levels conducive to concentration. Learners spoke out strongly on the social merits of working in groups: “I like it that we work in groups and that we get to know each other more,” and “There’s not much people and people don’t fight that much. Like I don’t want to be with this guy, he sucks and all that stuff.” The learners desire to be part of cohesive groups that are tolerant of diversity. This may be an important foundation block upon which an inclusive culture of acceptance and belonging can be built.

### **4.5.2.3 Learning support activities**

The learners expressed their preference for learning support lessons that include an element of fun. They like games to be varied and have valid suggestions as to how the repertoire of existing games may be extended. This highlights the importance of getting input from learners when devising support activities. Reference was made to learners working with manipulative material in problem solving lessons, such as “cutting up chocolate” and “using your hands”. This underscores the relevance of making a variety of manipulative material freely available to learners in the foundation phase as they are generally working within what Piaget refers to as the concrete operational stage of learning (2.3.4). They expressed a desire for learning support activities that are in keeping with their personal interests and are grounded in reality, “not make believe.” This reiterates the need to extend the core lessons across the curriculum in order to

make the learning of phonics, spelling and problem solving relevant to the learners' world. The learners consider learning support activities as being beneficial and are of the opinion that they could improve their "knowledge in THRASS by making our lessons move up to three lessons a week."

#### **4.5.2.4 Collaboration and communication**

Although the introduction of collaborative co-teaching is relatively new at \_\_\_\_ the learners accept the collaborative learning environment as an integral part of their schooling and are positive regarding the simultaneous presence of two teachers in the class. They see it as being "way easier" with two teachers in the class and noted the merits of having two people to ask questions of and receive help from. A positive aspect of merging teachers with different styles and aptitudes was identified by a learner and his comment: "You might get two bits of information and that might help you with your answer" highlights the possibility of accommodating learners with diverse learning styles and needs through collaboration.

One learner was of the opinion that the use of groups facilitates positive communication: "It can help you better and guys like don't shout at each other and tell you what to do." This comment draws attention to the learner's desire to learn by discovery rather than mere instruction and highlights the impact that communication has on the learning process. In keeping with inclusive practices communication between all stakeholders in the classroom should lead to greater acceptance and tolerance of diverse learners.

### **4.6 QUALIFIED LEARNING SUPPORT TEACHERS' PMI DOCUMENTS**

A document generated by Edward de Bono's mind tool: Plus, Minus, Interesting (PMI) (3.4.2.2) was used to gather information from three qualified learning support teachers.

#### **4.6.1 SELECTED TRANSCRIPTIONS**

##### **4.6.1.1 Challenges that a learning support teacher faces**

LST1

- Staffing can be a problem: need trained and willing learning support staff who are motivated.
- Learning support teacher must work with other teachers in the Grade. You therefore need teamwork.

- Teachers need to be well prepared.
- Very time consuming.
- Children can be labeled if the groups stay the same. Children feel isolated and different if groups remain the same.
- Children can become too reliant on individual attention and assistance.
- Learning support can be very intensive and children tire easily.
- Can be expensive.
- Need to avoid disruptions in the class.

#### LST2

- There aren't enough qualified staff to provide the support needed within our school.
- Groups should be kept small for the specialised teacher to monitor progress.
- Individual therapy may be overlooked in favour of group therapy. Individual therapy is more expensive, but may be more effective for some children.

#### LST 3

- The earlier remedial is introduced, the quicker the pupils make progress.
- Some people/teachers are of the opinion that remedial should only take place once speech therapy is complete. My own experience is that when both are introduced progress happens quicker.
- If the remedial therapist takes the children out, a lot of work is missed and needs to be caught up. These pupils often can't afford to miss lessons in class.

### **4.6.1.2 Advantages of learning support in the classroom**

#### LST1

- Build on individual strengths.
- Children with special needs are given extra support.
- Children in the learning support groups can work at their own pace.
- Children are more motivated if they work in a small learning support group.
- The children in the group are given instant feedback.
- The children in the learning support groups are less afraid to think aloud.
- The learning support teacher sets achievable objectives and children therefore experience success.
- Better consolidation of skills.

- More individualised teaching so activities can be based on children's interests.
- More intensive form of teaching promotes self-worth.

#### LST2

- Children experiencing difficulties can be given support using class based materials.
- There are fewer stigmas attached if the group is not fixed, children don't feel singled out.
- Teacher and therapist should work hand in hand.
- Children remain in the classroom.
- Cost effective.

#### LST 3

- Therapist is able to identify areas of weakness in a classroom situation.
- It is important that therapist works on the same concept in class – helps pupils achieve goals.
- The earlier remedial is introduced, the quicker the pupils make progress.
- Focus can be given to the weaker child and confidence is built instead of lost.
- The trust that the pupil has with a therapist has a very positive effect on progress and confidence.
- The remedial therapist offers a “safe place” for pupils who find certain areas difficult.
- Pupils have an option of learning methods that may suite their needs better than the method being used in class.
- Teachers can benefit by seeing other methods to help pupils.

### 4.6.2 INTERPRETATION OF DATA

#### 4.6.2.1 A paradigm shift from a medical deficit model to a social systems model

The learning support teachers were not unanimous in their support of an exclusive social systems model of support. A leaning towards the social systems model of support is evident in the following statement: “If the remedial therapist takes children out a lot of work is missed and needs to be caught up. These pupils often can't afford to miss lessons in the class.” However, a learning support teacher also raised the following issues: “Individuals may be overlooked in favour of group therapy. Individual therapy is

more expensive, but may be more effective for some children.” This suggests that some learning support teachers may subscribe to the option that various models of support may at times be complementary rather than mutually exclusive.

#### **4.6.2.2 Groups**

A preference for flexible grouping of learners was expressed by some learning support teachers and this choice is grounded in the negative psychosocial effects associated with rigid grouping. Their statements: “There are fewer stigmas attached if the group is not fixed, children don’t feel singled out” and “Children can be labeled if the groups stay the same, children feel isolated and different if groups remain the same,” bear testimony to their apprehension regarding static group composition.

With regards to the size of the group, one learning support teacher felt: “The groups should be kept small for the specialized teacher to monitor progress.” This suggests that there is scope for greater teacher collaboration and joint assessment of learners. Ideally the learning support teacher should not be typecast into a role that involves assuming discrete responsibility for a specific group of learners.

#### **4.6.2.3 Learning support activities**

The learning support teachers subscribe to a holistic form of support that encompassed academic support and support to the learner as an individual. Academic support that “consolidates skills,” “uses class based materials” and takes “children’s interests into accounts” were noted as merits of offering learning support within the classroom. With regards to support of the individual, the learning support teachers felt that that support rendered within the general classroom “promotes self-worth” and that “confidence is built and not lost.”

#### **4.6.2.4 Collaboration and communication**

The learning support teachers identified the fundamental need for “teamwork” and for learning support teachers and general education teachers to work “hand in hand.” One learning support teacher is of the opinion that learning support should be implemented timeously and that collaboration in the form of multidisciplinary support is conducive to progress.

Collaboration requires purposeful engagement of both teaching parties and the importance of enlisting “trained and willing learning support staff, who are motivated” was identified by the learning support teachers. The increased instructional opportunities beset in collaborative co-teaching were noted by the learning support teachers: “Pupils have an option of learning methods that may suite their needs better than methods being used in class.” The possibilities of developing new teaching strategies within a collaborative co-teaching environment were raised and the benefits of “seeing other methods to help pupils” were acknowledged. An increase in planning and preparation time is a byproduct of collaborative co-teaching. The fact that learning support within the classroom is “very time consuming” was noted as one of the challenges that a learning support teacher faces.

Effective communication is a cornerstone of successful collaborative co-teaching. Issues that have their origin in communication were raised by learning support teachers. The possibility of communication in the form of “instant feedback to learners” was considered an advantage of learning support within the classroom. Insufficient communication is possibly at the root of this statement: “There aren’t enough qualified staff to provide support needed within our school.” Within the foundation phase there are four general education teachers that hold learning support qualifications, but are not making specific use of this expertise. With greater awareness of the abilities of staff members and creative timetabling it may be feasible to harness the existing potential and empower the learning support programme. Effective communication between general education teachers and learning support teachers is a possible solution to the expressed concern regarding the “need to avoid disruptions to classes.”

## **4.7 DISCUSSION OF RESEARCH RESULTS**

### **4.7.1 HOW WILL LEARNING SUPPORT BE IMPLEMENTED IN A GENERAL CLASSROOM SETTING?**

Learning support will be implemented in the general classroom largely under the umbrella of social systems model of support. The social systems model embodies inclusive practices and represents a major shift away from the medical deficit model. The latter regards the deficit or problem as in the environment or in the manner in which society responds to the individual, in the individual. Whilst the social systems model forms the backbone of the learning support programme, there are instances where

barriers to learning may be more efficiently addressed following a medical deficit model. Hence there is a need for balance and the recognition that the theories may be complementary rather than mutually exclusive. The social systems model of support was well received by the Head of Department, the general education teachers, and the learners. The learning support teachers found elements of it appealing, but were wary of using it exclusively.

Learning support will be implemented predominantly through the use of collaborative co-teaching. According to Walther-Thomas et al. (2000:163) four basic collaborative co-teaching format variations exist. They include: interactive teaching, parallel teaching, alternative teaching and station teaching (2.2.3). The data collected indicate that the use of groups features strongly as a means of bringing learning support into the classrooms. The composition and size of the group varies in accordance with the choice of collaborative co-teaching format and will be further determined by the: area of learning, the needs of the learners and teachers and the objective of the lesson. Flexible grouping was favoured by the Head of Department, general education teachers, learning support teachers and learners. They identified the following merits of flexible grouping: increased learning opportunities, less likelihood of stigma attachment, opportunities to give recognition to diverse selection of learners, facilitation of effective assessments and promotion of professional development.

The learners and a learning support teacher expressed their preference for small groups. The learners found small groups appealing because they foster a sense of acceptance and belonging, improve the teacher-learner ratio and reduce the noise level which is conducive to optimum concentration. A learning support teacher cited the need to monitor progress as her reason for wanting small groups. This suggests that there is scope for greater collaboration and communication between the learning support teacher and the general education teacher as assessment and monitoring of progress are their joint responsibility. Regarding the timing of the learning support lessons the general education teachers liked the lessons to “fit into the existing daily routine” whereby Numeracy is done early in the morning. This intonates a desire for learning support to become an integral part of the school day.



The possibility of extending the existing learning support was raised by the Head of Department and the learners. Introducing multidisciplinary support within the classroom environment was mentioned by a general education teacher. A learning support teacher felt it beneficial for learning support and speech therapy to occur concurrently when necessary.

#### **4.7.2 WHAT SUPPORT WILL THE LEARNING SUPPORT TEACHER PROVIDE TO LEARNERS WITH NUMERACY AND LITERACY PROBLEMS?**

The learning support teacher will aim to provide learners with support that is holistic in nature. This involves facilitating and making allowances for learning support to extend beyond instructional support (2.3.4) in Numeracy and Literacy in order to encompass the creation of a supportive learning environment where a community spirit prevails (2.3.2) and to promote the development of the learner as an individual (2.3.3).

Common underlying principles exist in the support that is given in both Numeracy and Literacy. Learning support that is rooted in reality is one of the common threads in both learning areas and thus THRASS activities that are linked to current events and problem solving activities that make reference to occurrences with which the boys are familiar are employed. The Head of Department, learners and general education teachers endorse the principle of extending learning across the curriculum with the intention of making activities relevant and applicable to the learners' world. Support in the form of peer instruction is a feature that spans both Numeracy and Literacy support. Group work presents many opportunities for peer instruction and through the active management of group activities bonds of alliance and belonging are fostered. One learner commented specifically that he "liked it that we work in groups and that we get to know each other more." Support in Literacy and Numeracy should encourage the development of self-determination in learners. By soliciting the learners' opinions regarding grouping the Head of Department has nurtured this element of support and it is an aspect that can be built upon.

In Literacy the focal point of learning support has been the teaching of spelling and phonics using the THRASS programme (1.6.6). A resounding preference for different activities that have an inherent element of fun was voiced by the Head of Department, general education teachers and learners. These games and puzzles address the

academic and social needs of diverse learners. According to the general education teacher, they are of academic worth and learners experiencing barriers to learning are able to keep pace with the demands of the games. In offering support of this nature learners experience success which may in turn boost their motivation and arrest the vicious cycle of failure (2.3.3). Activities that extend learners who cope easily with class activities have been identified by a general education teacher as a necessary component of learning support. Learning support is underpinned by the notion that inclusion is beneficial to all learners. Thus, it is important to offer differentiated activities to support this quotient of learners.

Learning support in Numeracy has focused primarily on problem solving activities. Problem solving is, however, not viewed as being an island of knowledge as the development of numerical ability is multifaceted and interdependent. An important dimension of support has been the introduction and consolidation of numerical concepts that are fundamental to devising solution strategies for problem solving activities. Learning support also includes Shape and Space work. The introduction of Shape and Space work has been well received by the general education teachers as it creates opportunities for a diverse selection of learners to excel and receive recognition and positive reinforcement for their efforts. As part of the learning support a learning support teacher should ensure that manipulative material is available to learners and a learner's expressed enjoyment "of cutting up chocolate" during problem solving reiterates the relevance of making learning support activity based.

Indirectly the learning support teacher also offers support to the learner through her interactions with the general education teacher and the Head of Department. The resource support, in the form of professional literature, has an effect on the overall vision of this inclusion model and the benefits of new ideas gleaned from professional literature are felt by the learners. The moral support given to the Head of Department and general education teachers fortifies them to remain motivated, realistic and committed to devising strategies to best address barriers to learning. A general education teacher made reference to the fact that when dealing with difficult boys, the learning support teacher's presence allows her to "...just get a bit of a breathing space myself and then I'm in a more positive frame myself to cope." I consider this form of indirect support as having a valuable spin off for learners. Evaluation support is a further example of support

that is given to the general education teacher, but the positive ramifications are experienced by the learner. The learning support teacher and the general education teacher assume joint responsibility for assessment of learners and together they should be more astute in identifying barriers to learning and objectively assessing the learners.

#### **4.7.3 WHAT CHALLENGES WILL THE LEARNING SUPPORT TEACHER ENCOUNTER IN PROMOTING AN INCLUSIVE MODEL OF EDUCATION?**

Inclusion is a relatively new concept in South Africa and the notion of providing support as an ongoing, integral feature of education may not yet have been fully accepted or internalised by all parties involved in independent education. One of the initial difficulties that a learning support teacher may experience in promoting an inclusive model of education is convincing management of the positive potential of the social systems model of support. Support of this nature differs from medical deficit support whereby remediation occurs out of the classroom at the financial expense of the relevant parents. In respect of this study it took six months of negotiations with management to procure permission to offer in class support. The learning support position is temporary and comes under review on a yearly basis. In this study the Head of Department plays an active role in liaising with management to give feedback on the success of the inclusive model and to motivate for sustained and additional budget allocation. The Head of Department is of the opinion that communication in the form of feedback from general education teachers and modeling by the learning support teacher have been effective means of keeping management informed of the worth of this inclusive model of education.

The challenge of staffing was raised by a learning support teacher. She was concerned that “there aren’t enough qualified staff to provide the support needed within our school.” In an attempt to approach this proactively it was discovered that there are four employees in the school who are qualified learning support teachers, but do not make specific use of this qualification. It is possible that their expertise may be harnessed with negotiations and creative timetabling. A more urgent challenge would appear to be the need to find appropriate partners as learning to value and respect a partner’s professional viewpoint is essential to successful co-teaching (Walther-Thomas et al. 2000:198).

Structuring a timetable to incorporate learning support lesson is a very real challenge that confronts the learning support teacher in her efforts to promote an inclusive model of education. The general education teachers expressed their desire for support lessons to occur early in the morning in order to fit in with their routine and to be at a time when the learners are “fresh and available to learn.” It is important that channels of communication are kept open regarding timetabling and that the learning support teacher is realistic and flexible in meeting the requirements. The Head of Department suggested the possibility of employing an additional learning support teacher in a bid to alleviate the constraints of the timetable.

A challenge that is pivotal to the success of this model of inclusion is the development of sound, collaborative working relationships between the learning support teacher and the general education teachers. According to Sands et al. (2000:122), collaborative relationships are based on direct interaction among co-equal parties, who voluntarily participate, share responsibility and accountability, make decisions together, grow to trust and respect one another and begin to move towards similar value positions. A healthy relationship needs to be consciously nurtured and developed through the process of communication and co-planning. This is a time consuming process and definite periods should to be routinely allocated for this purpose. The Head of Department considers it important to “set ground rules” at the outset of the relationship to ensure that there is a full awareness that the partnership is being entered as co-equals and that the learning support teacher is not there to usurp, criticize or judge the general education teacher. A general education teacher raised the point that the learning support teacher must not become “fixated on her own ideas” and this reiterates the importance of mutual professional respect.

In collaborative co-teaching the content expertise of the general education teacher is combined with the pedagogical skills of the learning support teacher. Typically the general education teacher turns to the learning support teacher for information about unique learning characteristics, classroom accommodations and modifications and other strategies for individualising instruction whilst the learning support teacher needs the support of the general education partner as she learns about general education classrooms (Walther-Thomas et al. 2000:203). The learning support teacher may experience challenges in formulating supportive activities that accommodate diverse

learning needs. The data collected in this study suggest that support that is interactive, activity based and contains an element of fun such as games and puzzles are the most successful means of accommodating barriers to learning within the general classroom. Taking cognisance of learners' input and aligning activities to the interests and cognitive developmental levels of the learners are ongoing challenges for a learning support teacher.

A further challenge that the learning support teacher faces is to be ethical and honest in evaluating the success of the learning support programme. A concern was raised by a learning support teacher that "Individual therapy may be more effective for some children." It is incumbent of the learning support teacher to be professional and objective in her assessments of individuals. In this study the learning support programme is still in its infancy and if this form of support is unable to sustain the necessary progress for a specific learner then other support options should be explored and appropriate referrals made.

#### **4.8 CONCLUSION**

Data were collected by means of interviews, observations and documents. This information was read several times to gain a sense of the whole and from this certain categories emerged which were subsequently analysed. According to Tesch (1990) in Creswell (1994:154) while much of the work in the analysis process consists of "taking apart" (for instance, into smaller pieces), the final goal is the emergence of larger, consolidated picture. Internal validity of the information has been taken into consideration by: mechanically recording data, verbatim transcription of the participant's responses and performing "member checks" whereby the identified categories and resultant interpretations of the data have been taken back to the adult informants for verification of its authenticity. The data were interpreted in the light of a relevant literature review.

The purpose of this study, to explore and describe ways in which a learning support teacher can promote the development of an inclusive model of education regarding Numeracy and Literacy in the foundation phase at an independent school has thus been achieved and the research question answered. In Chapter 5 findings are made, recommendations are offered and conclusions are drawn.

## **CHAPTER 5**

### **FINDINGS, RECOMMENDATIONS AND CONCLUSION**

#### **5.1 INTRODUCTION**

The educational policies of inclusion imply a paradigm shift, not only for education, but for life as a whole (Bothma et al. 2000:200). If a learning support teacher is to embrace this move authentically and effectively, he or she will need to combine the mantle of moral purpose with the skills of change agency (Jorgensen 2006a:68). The following quotation epitomizes the essence of embodying one's principles:

You must be the change you want to see in the world

Mahatma Ghandi

This study concludes with a summary of the literature review and empirical findings. Recommendations for further research are made, shortcomings are presented and a conclusion is drawn.

#### **5.2 PURPOSE OF THE RESEARCH**

The primary purpose of this research was to determine and explore ways in which a learning support teacher can promote the development of an inclusive model of education with regards to Numeracy and Literacy in the foundation phase at an independent school.

The specific purpose of the research was to address the following research questions:

- How will learning support be implemented in a general classroom setting?
- What support will the learning support teacher provide to learners with Numeracy and Literacy problems?
- What challenges will the learning support teacher encounter in promoting an inclusive model of education?

### **5.3 SUMMARY OF LITERATURE AND EMPIRICAL INVESTIGATION**

#### **5.3.1 LITERATURE SUMMARY**

The literature review mapped out the main issues in the field being studied and provided a “strong orienting framework” (De Vos et al. 2006:264). It served as a foundation for the study and placed it within the context of research both in South Africa and internationally.

The movement to inclusion has heralded a shift from the medical deficit model to a social systems approach to support. In a medical deficit model the deficit is looked for within the learner and “pull-out” programmes are the preferred means of intervention. The social systems model of support considers the deficit or problem as seated within the environment or manner in which society responds to the individual. In keeping with this theory the stumbling blocks within the system have to be addressed in order to accommodate diverse learners and “push-in” support is brought to the learners within their general classroom environment. Whilst there has been polarisation of support around the opposing medical deficit and social system models, many theorists have identified a need for balance and recognise that the theories are not mutually exclusive, but rather complementary.

Full, cluster, reverse and social inclusion are the four major models of inclusion which have been identified according to Guralnick (2001:3-35). In order to implement a major model of inclusion, models for a building level are necessary. They include the consultant model, teaming model and collaborative co-teaching model (Daack 1999:1-3). Collaborative co-teaching formed an important focus of this study. In a collaborative co-teaching model the general education teacher and learning support teacher work as co-equal partners and assume joint responsibility for instruction planning and delivery and learner assessment and discipline. The strength of collaborative co-teaching lies in its capacity to harness the expertise of a general education teacher with the pedagogical skills of the learning support teacher.

There are several benefits of employing a collaborative co-teaching model for inclusion. Within this model learners experiencing barriers to learning are accommodated primarily within the general classroom which means that instructional time is not lost in traveling to and from an isolated therapy room. Learners do not need to orientate themselves to a

new setting or generalise skills learned in a “pull out” resource room to a general classroom. Collaborative co-teaching also holds the potential benefit of great instructional power. The learner-teacher ratio is improved and different teachers bring a variety of styles, personalities and skills to the learning environment which facilitates comprehensive, insightful assessment and allows for greater scope and flexibility in accommodating learners. For teachers it provides greater opportunities for personal and professional growth. Ultimately collaborative co-teaching facilitates changing the stigma attached to barriers to learning and increases the possibility of integration of all learners (Avissar 2000:4; Howells 2000:157-160).

The following challenges of collaboration co-teaching were identified. It requires a high degree of cooperation and mutual respect and demands a considerable increase in planning and preparation time. It is financially costly to pair a general education teacher with a learning support teacher and at times the learning support teacher’s caseload may be excessive and individual learners may not receive the sustained, intensive support that they need. The possibility exists that collaborative co-teaching may lead to teachers being typecast in specific roles and job sharing rather than learning enrichment may result.

In this study support was given to learners in Numeracy and Literacy. Within the field of Numeracy, attention was focused on problem solving. Hammil and Bartel (1995) in (Dednam 2005a:206) identified the following principles of support:

- Use a vast variety of concrete teaching material to give learners the opportunity to visualise, explore and communicate concepts.
- Use a variety of thinking strategies to solve problems.
- Relate exercises and outcomes to real world context.
- Present the curriculum in a flexible manner.

With regards to Literacy, support was channeled in the areas of phonics and spelling. Support in language problems should start as early as possible and learning support teachers should be familiar with methods and strategies of assessment and support (Dednam 2005b:123). Lomofsky et al. (2007:85) advocate the use of multifaceted balanced instruction that includes an artful blend of direct instruction in phonics and



other reading and writing strategies along with a rich assortment of literature, oral language and written language experiences.

Aside from instructional support a learning support teacher also has a role to play in creating a supportive psychosocial environment for the learner. Inclusive school communities require a shift from exclusion, individualism, and isolation to an emphasis on belonging, alliances and mutual support (Sands et al. 2000:122). In promoting a model of inclusion the learning support teacher is involved in rendering support to the learner as an individual. Self-determination and motivation lead to the development of healthy self-esteem. Self-determination is fostered by encouraging learners to communicate their thoughts, concerns, opinions and wishes (Jorgensen 2006:58). Without motivation the best-executed instruction will not result in the intended outcomes (Sands et al. 2000:356). The learning support teacher should build small successes into every possible activity in order to create opportunities for success and motivation and in turn break the vicious cycle of failure.

Learners experiencing barriers to learning are a diverse group and the learning support teacher should provide a wide range of instructional support to meet individual needs. Piaget's four stages of cognitive development provide a framework for devising appropriate learning support activities. Maturation establishes the sequence of cognitive stages, but this development does not just happen it is based on active engagement and exploration of the physical and social world (Donald et al. 2004:69). Vygotsky's works from the premise that learning and development occur via social interaction and engagement. Vygotsky's zone of proximal development and scaffolding techniques are guiding principles that learning support teachers may adhere to in order to facilitate learners' increased cognitive competence and independence.

Instructional support requires an understanding and accommodation of various learning styles. Learners may learn optimally through either a visual, or auditory or tactile/kinesthetic modality. It is incumbent on the system to adapt to the learners' needs and not the other way around. Reciprocal peer instruction is an effective means of providing instructional support and promoting inclusive practices. Peer instruction allows learners to motivate their peers to contribute their best performance to complete tasks and ensure success (Bauer & Shea 2003:244).

Assessment is a crucial dimension of instructional support. In inclusive settings it is essential that assessment be a shared process through which professionals and families exchange information to the benefit of the learner (Gargiulo & Kilgo 2005:12; Walther-Thomas et al. 2000:253-256). Assessments may be used to identify changes needed in the learners' environment and to determine optimum learning support. Multiple forms of assessment are needed to enable learners to demonstrate their learning in diverse ways. Salvia and Ysseldyke (2001) in Smith et al. (2006:114) identified the following four approaches used for gathering information on learners: observations, record or portfolio review, testing and recollection by means of interview or rating scale.

In order to promote inclusion the curriculum should be adapted to suit the learner, rather than have the learner fit the curriculum (Lomofsky et al. 2007:76). Curricular reform is thus a fundamental aspect of instructional support and the general education teachers and learning support teachers have skills that, when pooled, put them in the position of creating a curriculum that takes into account learners' diversity. The IEP is a useful tool in determining curriculum adaptations and modifications (Sands et al. 2000:322). The IEP acknowledges differences among learners and ensures that instructionally relevant interventions are planned and implemented to enable learners to succeed (Lockhart Walton 2006:96).

In the field of inclusive education Bronfenbrenner's ecological model of development has relevance in emphasising the interaction between an individual's development and the systems within a general social context. Bronfenbrenner's theory rests on the notion that the social contexts in which a person develops are interrelated and nested one inside the other. However, the environment does not simply impact on the learner. A learner's perceptions of his or her context are central to understanding how they interact with the environment (Swart & Pettipher 2005:9-12).

### **5.3.2 SUMMARY OF THE EMPIRICAL INVESTIGATION**

A synopsis of the findings of the empirical investigation of Chapter 4 follows.

- Inclusion calls for the exploration of alternative ways of delivering support to learners. A shift from offering support based on the medical deficit model toward the social systems model is aligned with inclusive practices. The theories are not

mutually exclusive and the needs of the individual should be the determining factor in devising strategies to best accommodate diversity.

- Collaborative co-teaching is an effective means of developing an inclusive model of education and providing learning support within the general classroom.
- Collaborative co-teaching may be strengthened and encouraged by accommodating this teaching variation within the general timetable and by making time provisions for collaboration and co-planning.
- A variety of flexible grouping opportunities should be employed and the use of small groups should not be overlooked. Learners can be grouped in ways to capitalise on the strengths and opportunities available through homogeneous grouping, heterogeneous grouping and interest based grouping.
- Learning support should be holistic and extend beyond instructional support to encompass the creation of a supportive learning environment and promote the development of learners and general education teachers.
- Curricular and assessment adaptations are vital dimensions of learning support that may be offered by learning support teachers.
- Learning support activities that are interactive, activity based and contain an element of fun are successful means of accommodating learners experiencing barriers to learning within a general classroom. The use of active methods, such as games and dramatisation, provides a structure by which learners may access the curriculum.
- It is worthwhile listening to learners and getting to know their interests. When learning support is rooted in reality and is relevant to the learner's lives and interests, they invest emotionally in their learning and are more likely to remember and understand the concepts and skills covered in the lessons.
- Manipulative materials assist learners in developing meaningful mathematical concepts and should be made freely available to learners.
- Reciprocal peer instruction is an important means of providing learning support within an inclusive setting.
- Collaborative efforts amongst all school personnel are essential in the development of an inclusive model of education. The school principal and the heads of departments are major players in setting the tone regarding diversity. To varying degrees, they determine whether meeting the support needs of learners will be made a social and financial priority.

#### **5.4 SHORTCOMINGS OF THIS STUDY**

- The selection of informants was not as comprehensive as it may have been. Only one member of management was interviewed – the head of department. It would have been interesting to include the headmaster's perceptions on inclusion practices. Parents are a vital part of a learner's education and their experiences of inclusion in the classroom were not included in the study.
- In qualitative research the researcher is directly involved in the setting. As such, no qualitative report can exclude the researcher's own perspective, and consideration should be given to how that might have shaped events and interpretations (De Vos et al. 2006:353). In this study all the informants are known to me and this may have brought a unique bias to the data collection and analysis processes.
- This study has been limited to an independent preparatory school for boys. The findings of this research are specific to this context and therefore cannot be generalised. However, generalisation is not the aim in qualitative research which instead seeks in-depth understanding.

#### **5.5 RECOMMENDATIONS FOR FURTHER STUDY**

The findings of this study suggest that there is scope for further study in South Africa in order to determine:

- How positive psychology could be coupled with collaborative co-teaching to promote a model of inclusion.
- How collaborative co-teaching could be extended beyond Numeracy and Literacy to infuse all learning areas and activities in the general classroom.
- How to extend learning support within the classroom to include the multidisciplinary expertise of speech therapists and occupational therapists.
- The extent to which principles of collaborative co-teaching are being successfully applied in public schools.

#### **5.6 CONCLUSION**

This study was undertaken with the purpose of determining and exploring ways in which the learning support teacher can promote the development of an inclusive model of education with regards to Numeracy and Literacy in the foundation phase at an

independent school. This goal has been achieved by means of a comprehensive literature review and the interpretation of data collected through interviews, documents and observations. The study shows that if a learning support teacher responds to learners' behaviour within the framework of inclusive practices, the effects of his or her work and interactions may be far reaching. Learning support teachers have an important role to play in accommodating and ensuring the integration of diverse learners and if they commit themselves to working in a collaborative manner with all members of the school system, they will be empowered in the quest to develop an inclusive model of education.

Individual commitment to a group effort-  
That is what makes a team work, a company work,  
A society work, a civilization work.

Vince Lombardi

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## **ADDENDA**

**Addendum A: Letter to the Headmaster requesting permission to undertake research at his school.**

Claire Yorke

Cell: 0832317547

email: [yorke@telkomsa.net](mailto:yorke@telkomsa.net)

10 September 2008

Dear

### Request to conduct interviews pertaining to learning support within the classroom

UNISA has approved my proposal to research: Promotion of inclusive education by the learning support teacher concerning foundation phase Numeracy and Literacy in a Gauteng independent school. This study forms part of my Master's programme and I am required to collect data from persons who have been involved in learning support within the general classroom. I would appreciate your permission to conduct focus group interviews with four general education teachers and four Grade 3 learners. To gather information from a managerial perspective I would like to conduct a semi-structured one-on-one interview with the Head of Department. I anticipate that the adult interviews will focus on the following questions:

- How can learning support be structured and implemented within a general classroom setting?
- What specific support can learning support teachers provide to learners in the areas of Numeracy and Literacy?
- What challenges may the learning support teacher encounter in promoting an inclusive model of education?

The interview with the learners will concentrate on:

- Aspects of classroom learning support lessons that the learners enjoy.
- Aspects of classroom learning support lessons that the learners would like to change.

With regards to learning support teachers I plan to ask three qualified learning support teachers to complete a PMI- based on Edward de Bono's mind tool principles. The PMI should highlight positive, negative and interesting aspects of offering learning support within a general classroom setting.

I am increasingly convinced of the positive potential of learning support within the general classroom and feel that there is merit in pursuing this area of research. You are welcome to review my research, however, participants responses will be recorded anonymously and their identification will not be revealed.

Regards

---

Claire Yorke



## Addendum B: Response from the Headmaster

11 September 2008

Mrs C Yorke  
Preparatory School

Dear Claire

Thank you for your letter of 10 September requesting permission to conduct research at  
towards your Master's Degree.

I am pleased to accede to this request and am thrilled with your choice of topic and the fact  
that you are conducting your research here. We would be very grateful were you to share the  
results with us.

I wish you success with your degree.

Kind regards

**HEADMASTER**

CC:



### **Addendum C: Letter to parents requesting permission to interview their child**

Claire Yorke  
Cell: 0832317547  
Email: yorke@telkomsa.net  
10 September 2008

Dear

I am a qualified learning support teacher and am involved in an inclusive learning support programme. I am currently working on my Master's dissertation regarding inclusion and the promotion of learning support within a general classroom setting. This form of learning support is designed to provide learners with the benefit of having a qualified learning support teacher working collaboratively with the general education teacher. By improving the teacher pupil ratio and capitalizing on the learning support teacher's specific knowledge it is possible to attend more comprehensively to the diverse needs of learners.

As part of my research I am required to collect data from learners who have received this form of support. To this end I request permission to involve your child in a small focus group interview that should last for approximately twenty minutes. The interview will be scheduled during the school day at a time that suits the learners and general education teachers. The interview will be conducted in my office on the school property. Participants' responses will be recorded anonymously and their identity will not be revealed.

If you are willing for your child to take part in this study I require the attached consent form to be completed and returned to me by 17.09.08.

Thank you

---

Claire Yorke

## Addendum D: Permission form for learners to partake in the interview

### Claire Yorke

D.E(JP)Rhodes; HDE(JP)JCE; Remedial CEEFT; BEd Hons UNISA

P.O. Box 1085  
Four ways  
Johannesburg  
2055

Tel: (011) 465-1587  
Cell: 0832317547  
e-mail: yorke@telkomsa.net

### CONSENT FORM

I \_\_\_\_\_ (parent) give consent for my son \_\_\_\_\_ to participate in a focus group research interview conducted by Claire Yorke. The research forms part of a UNISA Master's dissertation. I am aware that for the purpose of accurate representation the interview will be recorded. All responses will be recorded anonymously and the participant's identity will not be revealed.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

**Addendum E: Example of a problem solving activity**

Source: Murray, Human & Olivier 1999:78

## 44. Toys out of wire

This is a two-day task.



The children are making different animals and cars out of wire. They need  $2\frac{1}{2}$  m of wire to make a car. They can sell a car for R30. They need  $1\frac{1}{2}$  m of wire to make an animal. They can sell an animal for R20.

1. The children have 20 m of wire.
  - (a) How many cars can they make out of 20 m of wire?
  - (b) How many animals can they make out of 20 m of wire?
2. Look at the two answers you got for problem 1. Look at the selling prices for the cars and the animals.  
Help the children to decide which to make, cars or animals, to earn the most money.



**Addendum F: Examples of a learner using drawing as a means of solving problems**

The image shows a student's handwritten work on a piece of lined paper. At the top, there are two rows of tally marks. The first row has 12 marks (four groups of three), and the second row has 4 marks (two groups of two). Below these are 10 circles, each containing a different number of tally marks: 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11. Below the circles is the equation  $48 \div 12 = 4$ . The text "Each boy gets 4 Hot dogs:" is written below the equation. A horizontal line separates this section from the next. Below the line are 5 circles, each containing 11 tally marks. Below these circles is the equation  $11 \times 5 = 55$  and the text "55 boys play." Another horizontal line separates this section from the last one. Below the line are 3 circles, each containing 12 tally marks. To the right of these circles is the equation  $36 \div 3 = 12$ . Below the circles and equation is the text "there are 12 in each vase."

12  
4

$48 \div 12 = 4$

Each boy gets 4 Hot dogs:

---

11  
11  
11  
11  
11

$11 \times 5 = 55$

55 boys play.

---

12  
12  
12

$36 \div 3 = 12$

there are 12 in each vase.

## Addendum G: Examples of age appropriate, high interest reading material

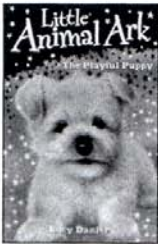

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Books with blatant boy appeal, and enough drama, excitement and humour to entice ALL readers, by a fantastic author-illustrator partnership, Ian Whybrow and Tony Ross.

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## **Addendum H: Verbatim transcription of semi-structured one-to-one interview with Head of Department**

Claire: Thanks, thanks for doing this for me. You've got the three main questions is there anyone in particular that you'd like to start with?

HOD: No let's just start at the top.

Claire: Start at the top. OK, the first one. With the structure of learning support, how can we structure learning support, from a management side, so that it can be implemented in the general classroom. What are some of the things that you have had to consider?

HOD: I think it's very important firstly that it is done in the classroom situation. In the past you know individual boys have been taken out of the classroom or small groups have been taken out of the classroom and I don't think that's the ideal way to do it. It's giving support to the teacher as well as boys in the class, having two teachers in the class supporting the boys whether it two smaller groups or teaching together it's far more beneficial than taking groups out and making them separate entities. *(Relaxed and calm)*

Claire: And with reference to you working in the classroom is there a particular grouping that you prefer, or do you like the groups to change?

HOD: Well me personally, I like the groups to change I think it benefits the boys having different teachers teach them and sometimes having a strong ability together or a mixed ability together and it also depends on the activity. Sometimes in Maths it's nice to sift the boys into strong ability and another teacher works with the weak one, but that also changes. I think it just depends on the teacher and what the needs are at that moment.

Claire: And the boys themselves do you think that they have a preference for a particular grouping?

HOD: From what I can gather I think that they like to be mixed and change around every week. They don't like to be with the same group and the same teacher every week. They actually asked to be changed.

Claire: Oh good, great. So that's basically emphasis in the class and groups that change according to what our needs are.

HOD: Ja.



Claire: OK let's go on to the next one. What specific support do you think the learning support teacher can provide to learners in the classroom. As a manager how are you looking at this?

HOD: I think that it's very important for the learning support teacher to come in and revise and consolidate concepts with the teacher and also to then allow the teacher or the learning support teacher to take a group of the weaker students and work on the concepts and also sometimes maybe take the brighter boys and give them extensions while the class teacher is working with the main group or vice versa, to change the roles like that. And also just to bring in something different into the classroom to bring in some fun games and add another dimension to the teaching.

Claire: And with the games that come in do you think that they are of academic worth for those children who are experiencing barriers to learning?

HOD: Definitely they are brilliant (*Emphatic*) and I've seen how much the boys love it especially the weak boys because it's not this strict academic curriculum that they've got to follow and sit down and write they can actually learn about and consolidate concepts in another manner for them, which I think is important.

Claire: So do you see it as a means of adapting the curriculum to suit children with barriers to learning?

HOD: Yes definitely.

Claire: Then maybe this one is relevant from a structural management side. The challenges that the learning support teacher encounters in putting in a more inclusive model, how do you try and support the introduction of that?

HOD: I think that the first thing is the time table especially at \_\_\_\_ where we've got the six day cycle and you've got to fit support teaching in with the different class. Because there's quite a lot that the school teacher has to do and cover and if the support is all in the morning then it's quite difficult to arrange that.

Claire: So do you think that it would be easier if it were stretched over a longer time into the later part of the day - or any preference?

HOD: I think if we had more support teachers so that if each Grade had a support teacher if possible, or two Grades have a support teacher.

Claire: So more support classes teachers and time wise in the actual day?



HOD: I think early mornings are definitely the best cos that's when we structure our Maths and English and that's the most important time when we need our support teacher.

Claire: And then with regards to the timing do you think that the 45 minute slots are working?

HOD: Yes I think that's a good time. You don't need more than that and I think less than that would be too rushed. I think also from a support teacher's point of view, I think that in the beginning it's quite difficult, some teachers feel quite threatened by having a support teacher in, so you have to work through that – one of the constraints. And obviously budgeting for it, (*Smiles*) you know not everyone is used to the whole idea of support and the groups in the classroom and how valuable it is. So to get that into the academic budget is a difficult task.

Claire: And to motivate for that. How do you think you could best motivate for more budget allocation?

HOD: Get feedback from the teachers. I think that the feedback that we have got at the moment from the teachers, there has not been one negative. It's been so positive and every single teacher that has had the support just wants it and more and I think that this has definitely made a huge impact. (*Makes eye contact*) And also just to come into the classes and see what is going on.

Claire: And with regards to parents do you think that they are aware of the support that is being put in.

HOD: Yes they are, the ones that I have chatted to are. They are actually concerned that it's not going to happen in Grade 5 and 6.

Claire: And then any other challenges that you could be aware of for implementing it with new teachers or improving it with existing teachers?

HOD: I think that you could set up almost like a contract – not a contract, but set some views between the two teachers. Because as I say I think that they can initially feel threatened that perhaps the support teacher is coming in to take over and to criticize. Just set the ground rules: I'm just coming in to support, I'm not criticizing, I'm never going to do an appraisal on you. (*Speaks rapidly*) That sort of thing, just to reassure them and then maybe to see it actually happening before you come in. To actually observe some other people doing it before you come in.

Claire: And the advantages?

HOD: To discuss children there and then that you are concerned about, to get a different point of view. For the support teacher to pick up things that maybe you as the class teacher are so involved in the whole teaching aspect of your class that you don't see the little things that are happening and for her to pick up on that and to remind you about what's happening and also to give advice and add a different dimension to your teaching. You know two people in the classroom that don't teach the same just makes it more fun for the boys and more successful for the boys.

Claire: Great anything else that you'd like to pick up on or add to?

HOD: I just think it's brilliant. The support in the classroom is just making so much more sense than sending individual boys out and I think it's so much better for the boys that this is taking place.

Claire: Good, Thanks very much I think we've gone through them all and if I need to come back for more then I'll contact you.

HOD: Pleasure. *(Smiles and laughs)*

## **Addendum I: Verbatim transcription of focus group interview with general education teachers**

Claire: Thanks for coming and for doing this for me. We've spoken about it and you've got the three main questions, is there any order that you'd like to start with – any preference?

GET 1: Should we start with the first one? (*Quietly spoken*)

Claire: OK, then I'm going to start first of all with how learning support can be structured and implemented in the general class. Have you had a preference of structure for support this year?

GET3: A good way of doing it is when you actually have your ability groups cos it makes it easier for the class teacher because either we can take the top boys and then you can take the weaker boys and then change around and you take the stronger boys and we take the weaker boys. It seems to work a lot better because then the boys are functioning within their own ability groups.

GET4: What's also nice though (*Contemplative*) is if we've also worked with mixed groups and what has been nice about that is that then weaker boys have been able to feed off the stronger boys and they've actually been able to get different ideas and I think it has actually been a good way to share ideas.

Claire: So do your groups change?

GET1: I prefer them to change. (*Nods*)

GET2: Ja I do too, one time I'll have the strong and the next time you'll have them.

GET4: I think that they would naturally change because you've got some boys that are stronger at Maths, but weaker at English and visa versa. So I think that your grouping would have to change according to the subject that you're busy doing.

GET3 It also depends on the reason you're doing it, because some lessons you want to specifically focus on your weaker boys and making sure they have the concepts other lessons you prefer to have a mixed group cos as GET4 says you can get your brighter boys to help your weaker boys. And sometimes the nice thing is that if you're doing – possibly I've seen with Space and Shape the weaker boys have actually got different aptitudes so if you do a different activity sometimes you find a weaker boy helping a so called brighter boy and it's so good for both boys a) for the weaker boy to realize you know actually I can help here and for the brighter boy to be able to learn to accept help as well. Because I think a lot of the times they know whether they're bright or which group they are

- in and if you continue changing and mixing and focusing on different things during your lesson you can see the different strengths and weaknesses in each boy.
- GET2: Like \_\_\_in my class he's brilliant at Space and Shape. It's something he's so confident about and looks forward to and he can help the boys.
- Claire: Good, OK and when we do our THRASS, typically we've been doing it with one teacher leading and then both supporting after that. How have you felt that's worked?
- GET1: I think it's nice because even when we work as the whole class there's two of us permanently walking around helping them so there's not just one teacher being drawn to different needs all the time
- GET4: I've actually loved that because you've been able to come in with different ideas. I think I personally sometimes get stuck with how I normally do things so you have been able to come in and give a different slant on the whole approach to the THRASS. Bring new ideas into the lesson and then I have been able to support you which has been very refreshing. *(Smiles and makes eye contact with me)*
- Claire: Great. So it's dual support in a way.
- GET4: Yes.
- GET3: And also what's been so great is I find I've got quite a few weak boys and it's just been giving me the time to actually sit one on one and showing him how to track and showing him words and all of a sudden sort of seeing this light bulb going on whereas when you're teaching a whole class you can't.
- Claire: You can't help everyone.
- GET4: I think what has also been nice is that when you've come in and led the lesson it's given the class teacher a chance to really step back and be able to be more objective on the class as a whole.
- Claire: OK.
- GET4: And I've been able to identify boys that I thought were doing OK in a particular area and actually realize oh hang on they're actually not coping at all or they're actually needing assistance and in the past I haven't picked it up. So it's been very beneficial because I've been able to step back and be able to observe more and assist you and get input on specific boys.
- Claire: So assessment has been a spinoff of the support?

GET4: Definitely.

Claire: What do you think of the timing of the support lessons?

GET4: I think it should be early in the morning. All the boys are fresh then and so they're still available to learn.

GET1: It's also the time when we do our Maths and I think it should be first thing in the morning.

Claire: OK and then if we go onto the next one. The specific support that the learning support teacher provides in Numeracy and Literacy, can you think of any thing that stands out.

GET3: I think what GET3 says, you know your different ideas and helping us to actually find different ways of doing it because you know you do get focused on teaching a lesson one way and I think that's been a great help, just your expertise.

GET4: I think also just looking at it and looking at the idea that I think we all tend to get honed in on the mechanics of the THRASS and you implement the THRASS, but you've made it into real life situations you've been able to come in for example when there's been Olympics on to link the THRASS to the current events at the time.

Claire: OK.

GET3: I think also a nice thing is the fact that you come in and possibly sometimes as a teacher you don't have enough time to think of new games, new puzzles and new ways of teaching it and I know my boys love it when you come in and you do BINGO and they're over the moon. (*Laughs and looks at colleagues*) And I think that's something as teachers we've got to keep reminding ourselves that they are children and the more fun you make it the more they enjoy it and the more they enjoy it the more they actually learn.

Claire: So you think that there is academic worth in the games and puzzles.

GET4: Absolutely.

GET2: I think the boys really like those and they're very important, the boys look forward to them and ja I think the games are very important. My boys in particular enjoy them.

GET3: Definitely.

GET1: I think they learn a lot from it as well, because they don't think that they are actually learning. They learn more when they are playing a game.

Claire: And the weak ones do you think they can keep up with the games?

GET1: I think so because it's a game and the stronger ones can't intervene giving the answers all the time so they have to do it themselves, so it actually encourages them.

GET2: Yes, ja. It's a less stressful situation for the weak ones because it's a game.

Claire: And apart from the games the actual THRASS support, how do you think it's helped the boys?

GET1: They are thinking of more words, it's not just their spelling words it's words that they actually come across like cricket, how do you spell cricket, what rhymes with cricket.

Claire: And then with trying to accommodate everyone in the class how do you think that your professional training has stood you in good stead for that, do you think you need more training, do you think the SAALED conference we went on was beneficial?

GET3: I think one of the things is that you get your basic training first, but I think once you're in the classroom and you're actually dealing with children one on one that's when you really start learning. And it's a case of you're continually learning you never really know enough and all the conferences and the courses and also just general interaction with other teachers continual learning process for us as well.

Claire: And then the challenges of trying to support within the class anything regarding that?

GET4: I think the first thing would probably be the timetable and how to timetable that in, would be a major challenge I think.

GET4: Yes. What I'd love to see actually, I don't know how you'd work the timetable, but to be able to get the therapists into the classroom as opposed to boys leaving the classroom. Then actually that would be better because then the boys are still learning in the context. So if there was a way that we could get the therapists into the classroom rather than the boys leaving the classroom. That would be brilliant.

GET3: And also making sure as a teacher that you're organized that when a support teacher comes in you're actually doing work that she's needed to help with – you're not writing down homework or changing books so you don't waste the time, so it's actually a valuable input.

Claire: And similarly the person that's supporting needs to be organized. How do you think that you could best be organized and optimize the support time.

GET3: I think probably your timetabling making sure you know when you're coming in and also obviously communication between the two of you. Making sure that you actually do meet before hand to make sure of where you're going what you're going to do in the lesson. And also afterwards it's good to reflect and to say what you did today was really excellent I could see it helped or maybe for next time could you do this.

GET4: I think one of the other challenges could be I mean we all work extremely well with you and we have a really dynamic team. If you had a learning support teacher that was going to be very fixated on her own ideas or didn't have a good rapport with the class teacher that might create a few challenges within itself.  
*(Takes elbow off the table and places hands in her lap)*

Claire: So you've got to build upon the relationship and that's sort of the foundation?

GET4: Yes definitely.

Claire: And then just to finish off the advantages. We have spoken of some of them sort of incidentally are there any that you can highlight?

GET1: I think that if you just look at THRASS as one example, not only are the boys benefiting hugely, but also as a teacher I mean I've learned so much more having you in the classroom you can see a different way of teaching.

GET3: I also think one of the great things is because teachers have got different personalities, different teaching styles that you can possibly come into a classroom and give praise to a child in a different way and actually build up their confidence and I think some children react differently to different types of teaching.

Claire: Absolutely.

GET3: And it's really been great to see and also the teacher we see the child differently when they interact with a different teacher.

Claire: That's been interesting for me too, a different slant.

GET4: That's been one of the huge advantages for me this year is with the one or two difficult boys that I've got in my class. That you've been able to come in and I've been able to step back and then just get a bit of breathing space myself and then I'm in a more positive frame myself to cope.

GET3: I think also that collaboration you know when you've got a difficult child or a difficult problem to be able to have somebody that's actually been in your class and actually seen what's happening. Because it's one thing to come afterwards

and say this child is doing this and this and this how do I help it. Whereas when you actually come into the class and see it, ah it's different. *(Laughs)*

Claire: Sure.

GET4: I think maybe we've already said it, but I think one of the main advantages for me this year has been able to step back and it's highlighted the boys for me that are weak and I'd thought were OK.

Claire: OK, so you're stepping back from the dynamics of teaching for that 10 minutes, but you're very active in the lesson with your assessment and your observing – so you're taking a sort of a different role.

GET4: Yes, yes.

Claire: I think that's all, is there anything else?

GET3: That's it.

GET4: No.

Claire: Thank you so much.



### **Addendum J: Verbatim transcription of focus group interview with learners**

L3: Turn the vol. up

Claire: Yes I want the vol. right up Thanks boys, thanks for coming we are going to be doing the learning support interview. Right, ready it's like you're on TV mister alright that's why I've got the tape recorder so that I can remember exactly what you said otherwise when I get home and I try to remember oh what was it that you said, I might not be sure OK so you must speak nice and loud.

L1: OK.

Claire: Before we start let's just remember some of the things that I've done in the class with you when I come for THRASS .Who can remember some of the things?

L2: Look on the two different sides.

Claire: OK look at the two different sides. What else?

L1: THRASS.

Claire: Yes, what parts can you remember?

L1: When you have to put your finger on the thing and then you have to think of other words.

Claire: Oh. OK when you are using the charts.

L3: Like you showed us like that THRASS is actually in alphabetical order and the pictures go with it.

Claire: Good you've remembered a lot and anything else?

L4: And each picture has a different key sound.

Claire: Each pictures got a different key sound and when we do the games and that and the worksheets, which ones do you remember?

L1: I remember, I remember the game when we had to read out the question and then we had to move.

Claire: Oh yes you had to write the words, and there was a wild card.

L4: Ah, I won that one. *(Smiling)*

Claire: You were lucky!

L2: And the snap.

Claire: Snap. OK snap and the memory game remember that one.

L3: Ja, I was just going to say that one – Like you turn over “ball” and you try and find “ball.”

Claire: Yes matching them.

L4: And the space chimps one.

L1: Oh ja.

Claire: Remember the space chimps and what about BINGO?

L1: BINGO.

Claire: Remember that one, where you have to cover the sounds?

L1: That was the one that I was....

L4: When you take the card and then someone tells the sounds.

L1: Ja.

Claire: Do you remember another one we rolled a dice and it was in like an eight and you landed on a THRASS picture and you had to say another word.

L4: No I don't think I did that one.

L3: Yes, where you landed on like pony and you had to say sony.

Claire: That's it that's the one. And then for the problem solving just let's try and remind ourselves of some of the things that we have done.

L2: The decomposing

Claire: Ja, clever boy.

L4: The chocolate one.

Claire: The chocolate one, remind me of that one what we did there?

L4: Each person had some and we had to share.

Claire: OK when we were cutting up the chocolate.

L1: Hot dog one.

Claire: The hot dog one?

L1: Ten hot dogs how many hot dogs will each boy get.

Claire: I remember the hot dog one now. Good thinking you've remembered ones I hadn't thought of for a while. Remember the problem solving sometimes we work in groups.

L2: I wish I had my problem solving book here.

Claire: Yes then we could look back and see. Sometimes we work in groups and sometimes we work as a whole class and sometimes we work on the carpet. OK so now we've got in our minds some of the things we do for THRASS and some of the things we do for problem solving. I want you to think of the things that you like about having problem solving and THRASS support in the class. We are going to think about things that you like and things that you'd like to change. But first of all things you like.

L1: I like all the games

Claire: Ja I also like the games actually.

L4: Me too. (*Babyish voice*)

Claire: What part do you like about the games, what makes them nice?

L1: Like the BINGO one and some shouts out BINGO and you're like ah I almost got that one.

Claire: And you wish you had.

L1: Ja and I like the games because on the one it's like oh I'm going to beat you I'm going to punch you if I don't beat you. (*Animated, makes a fist*)

Claire: Is it exciting for you?

L1: Ja.

Claire: And L3 what do you like about the games?

L3: I like it that we work in groups and that we get to know each other more.

L4: Hey I was going to say that too.

Claire: So you like working with people?

L4: Me too.

Claire: Is it different people that you get a chance to work with the groups?

L3: Well ja because if you sit in a groups sometimes if you are all talking then they choose you and you because you're far away from each other.

Claire: OK so you get a chance to work with different people that a very good thought.

L3: Sometimes you get to choose who you want to be with.

Claire: So do you like to have a choice? Sometimes we tell you and sometimes you choose. I'll remember that that's a good thought.

And if you choose do you choose the same person each time or do you change.

L3: Sometime I choose \_\_\_\_ I mainly choose my friends like \_\_\_\_ and \_\_\_\_.

L4: You friendly with \_\_\_\_? (*Scornful*)

L3: Yes! (*Indignant*)

Claire: LP4 what's your best part about the learning support?

L4: Having fun.

Claire: Having fun, OK what makes it more fun if you have two teachers in there? What's more fun with the learning support? What's the nice part?

L2: They can give you more different answers

Claire: They can give you more answers. They can help you with answers, stunning.

L1: And they also... they also mean that you don't have to wait in one huge bunch you can go into different groups.

Claire: OK so not one huge bunch, what's better about being in a small group? I like your answer!

L1: There's not much people and people don't fight that much. Like I don't want to be with this guy he sucks and all of this stuff.

Claire: And if you work in a small group then doesn't that happen?

L3: Like if your friend is a silver star and you are a red star and for one day you want to be with him and you can't because you would be here and he would be there, or something like that.

Claire: OK so you like it when the groups can change OK. You're doing so well guys thank you- you are thinking so cleverly.

L2: I like it when you are allowed to work on the carpet with groups. And with the groups if you have a small group there's not as much noise as a big group.

Claire: OK good thinking and when there's not as much noise how does that help you?

L2: It can help you better and guys like don't shout at each other and tell you what to do.

Claire: Listen to what he's saying they don't tell you what to do. So how do they help you if they don't tell you what to do?

L2: Well if they shout at you then you can't concentrate properly and you can't write the stuff down.

L3: And when it's like if you minusing and you don't know the sum and you have to use your hands (*demonstrates by raising fingers*) and they go hey and then you look back and then you forget your number.

Claire: Oh I see what you mean. OK so you prefer the small groups? Good idea. And the carpet, you say you like working on the carpet rather than in your desk.

L3&L2: Yes.

Claire: Alright those are interesting things and you like the games and the groups. Now if you could change something if you could say let's make it even better. How could we change things?

L1: We could, we could improve our knowledge in the THRASS by making our lessons move up to three lessons a week.

Claire: You think we should have more, more lessons on THRASS.

L1: Ja because, because I like THRASS.

Claire: OK well that's an idea you want another support lesson.

L3: Three or two lessons a week.

Claire: We've got one THRASS and one problem solving at the moment so maybe to put another one in.

L1: Two.

L3: Or another lesson with half THRASS and half problem solving.

Claire: OK just to give a little bit more time for it. How else can we change? What other things would you like to bring into the lesson?

L4: Umm working together.

Claire: More working together?

L4: Ja.

Claire: OK. What's the good part of working together? I really think you guys are smart.

L4: When you have different people in your group you get more different ideas.

Claire: So more groups.

L1: We can make our lesson longer.

Claire: Longer or another one?

L3: Rather another one because otherwise the whole school will have to make one extra lesson longer.

Claire: Good thinking cos we do have to fit in with the timetable. L2 you were thinking on an idea has it come to you? You're still thinking about it. OK. What else could we do? Think how else we could change it? What things would you like to stop and what things would you like to start?

L1: Ah I'd like to stop um doing the same things over and over again. (*Bored facial expression, monotone.*)

Claire: OK so what things over and over again.

L1: We keep on doing "ant" and all of those and doing words.

Claire: OK so you are tired of looking for words and finding words on the board.

L4: You need the words.

Claire: We can think about that. That's a good idea. What L4 said is also true we have to know where they are but maybe by now we do know and so next year then we don't have to do so much of that. Good. What else would you like to stop?

L2: Make new games up.

Claire: More games.

L2: Ja. Because we don't want to play the same game over and over.

L3: You can use like the same charts but instead you just change it so if you get it wrong you move back.

Claire: So more games and different games as well?

L3: Ja.

Claire: Have you ever played rummy? And do you know how to play "Go fish?"

L3: Ja, I know how to play "Go fish", but I only know how to play rummy cub, but not rummy.

L2: And change some of the problem solving.

Claire: How can we change some of the problem solving? How can we make it better for you?

L2: More and different like funner ones.

Claire: You like the fun ones.

L4: Like cutting up the chocolate. That makes my mouth water.

Claire: Me too. *(Laughs)*

L1: Hey look *(points)* there's a chocolate packet there.

Claire: I know and you'll never guess where the chocolates are hidden in this room. And just now we are going to go and find them. But that packet is empty it's just there as a reminder to me. Anything else you can think of? You've thought of the groups and the games that you like.

L1: That's pretty much all I can think of.

L4: I've got nothing.

Claire: One last thing. How's it for you L4 when you've got two teachers in the class?

L4: More easier.

Claire: Easier, good.

L2: Way easier. *(Loudly and emphatically)*

Claire: Why do you think it's easier? I like your thinking.

L2: Because you can go to two teachers to get your book marked.

Claire: Ah, that's a good thing.

L4: Two teachers to ask things.

L3: Like you can get both of their opinion and then maybe both of them are wrong so you can think of one like in between and you might get two bits of information and that might help you with you answer

Claire: Ah two hints and then it can help you get there. You boys are champions. Anything else, is that all?

L3: No. Not much.

L1: Nothing

L4: I've got something. Do more words on horses and ponies. (*High pitched voice*)

Claire: Why more words on ponies and horse?

L3: He loves ponies and horses.

Claire: You know that's a good thing if you learn about things that you're interested in then it makes it more fun.

L1: I also like them.

L2: I'm interested in Maths because I want to be a helicopter pilot. (*Sits upright in chair*)

Claire: Really, brilliant.

L3: So why would it help you with Maths.

L2: Because you've got to know a lot of Maths.

Claire: You do.

L3: Why.

Claire: So would you be interested in doing things about flying. So do you think we should try and make problem solving things about what you're interested in?

L1: Animals.

L3: Dolphins I love dolphins.

L4: Ponies (*Neighing noise*)

Claire: Good noise, make it again.

L4: Neigh.

Claire: So another idea would be to put your interests into the lessons.

L1: Learn more things about how people survive.

L3: Like wars and things

Claire: So real life things that happen.

L3: Not make believe. (*Grimaces*)

Claire: Oh boys you've given me so many ideas. Thanks guys. Anything else?

L2: No.

L1: Got nothing.

L3: When are we going to find our chocolate?

Claire: You're going to find them as soon as L4 presses the STOP.

L4: Press the stop. Where?

Claire: There.