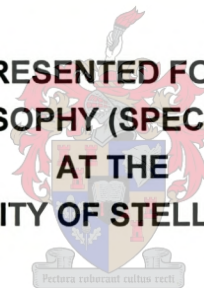


CO-OPERATIVE LEARNING FOR LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

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DECLARATION

I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and has not previously in its entirety or in part been submitted at any University for a degree.

SUMMARY

With current legislation focusing on the implementation of inclusive education, more learners with diverse needs are entering the regular classroom. In order to effectively address the needs of all learners, it is necessary for educators to implement effective teaching strategies in educating learners with diverse needs. Many educators have not been trained to address the needs of learners with special educational needs with the help of specific teaching strategies. Because of this, effective in-service training programmes for educators are necessary.

The primary aim of this research study was to determine whether the following outcomes of an in-service programme on co-operative learning for educators have materialised in the academic achievement, social skills and motivation of learners with special educational needs have improved.

The research design was evaluative in nature and specifically addressed the question of whether the participants (the learners with special educational needs) changed in the direction that the programme was planned. An integrated qualitative and quantitative methodology in evaluation research was followed and involved observations before, during and after the intervention.

Research findings indicated that both learners with special educational needs and regular classroom learners benefited favourably from the co-operative learning lessons in terms of academic achievement, motivation and social skills.

OPSOMMING

Met die huidige wetgewing wat die fokus toenemend op die implementering van inklusiewe onderrig laat val, betree al hoe meer leerders met diverse behoeftes die gewone klaskamer. Ten einde in die behoeftes van alle leerders te voorsien, is dit nodig dat opvoeders by die opvoeding van leerders met diverse behoeftes effektiewe onderrigstrategieë implementeer. Baie opvoeders is nie opgelei om met behulp van spesifieke onderrigstrategieë die behoeftes van leerders met spesiale opvoedkundige behoeftes aan te spreek nie. Vir hierdie rede is effektiewe indiensopleidingsprogramme vir opvoeders noodsaaklik.

Die hoofdoel van hierdie navorsingstudie was om vas te stel of die uitkomst van 'n indiensopleidingsprogram in koöperatiewe leer vir opvoeders verwerklik is en of die akademiese prestasie, sosiale vaardighede en motivering van leerders met spesiale opvoedkundige behoeftes verbeter het.

Die navorsingsontwerp was evaluerend van aard en het spesifiek die vraag aangespreek of die deelnemers (die leerders met spesiale opvoedkundige behoeftes) verandering getoon het in die rigting wat deur die programbeplanning in die vooruitsig gestel is. 'n Geïntegreerde kwalitatiewe en kwantitatiewe metodologie in evalueringnavorsing is gevolg en het waarneming voor, tydens en ná die intervensie behels.

Navorsingsbevindings het getoon dat sowel leerders met spesiale opvoedkundige behoeftes as gewoneklaskamer-leerders ten opsigte van akademiese prestasie, motivering en sosiale vaardighede by die koöperatieweleer-lesse baat gevind het.

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CHAPTER 1

RELEVANCE, STATEMENT OF THE PROBLEM AND OBJECTIVES

1.1 INTRODUCTION

Over the past two to three decades, education has been grappling with the education of learners with special educational needs. A combination of forces has focused increased interest on the instruction of learners with special educational needs in the regular classroom. The motivation for these efforts could be traced to a variety of factors, including

- an increase in learners being referred for special educational instruction (Gerber, 1984; Reynolds, Wang and Walberg, 1987; Ysseldyke, Algozzine and Epps, 1983)
- the efficacy of not only programmes that withdraw learners from regular programmes for individual instruction, but separate special schools (Allington and Johnson, 1986; Gallagher, 1984; Haynes and Jenkins, 1986) and
- instructional strategies that would be beneficial for all learners in the regular classroom (Johnson and Johnson, 1985; Stevens, Madden, Slavin and Farnish, 1987).

The philosophical development of educating learners with special educational needs within regular classrooms, originates from the idea that all learners are unique with their own capabilities to learn and that all learners belong and can learn in the mainstream of school and community (Dyson, Bailey, O'Brien, Rice and Ziegmond, 1998; and Stainback and Stainback, 1992). While many education systems in countries such as Japan and China, focus on learners with only specific academic

learning capabilities, or with certain social status, other countries such as Canada, Italy, Australia and New Zealand are trying to include all learners in one education system by providing them with equal access to educational programmes and learning experiences that would be socially, emotionally and academically beneficial to them.

The major focus behind this is the belief that every learner has a right to education and must be granted the opportunity to achieve and maintain an acceptable level of learning. All learners have unique characteristics, interests, abilities and learning needs. Thus, every effort must be made by education systems to design and implement systems that would accommodate their diverse needs. The underlying principle is that education systems have adopted exclusive policies in the past by excluding learners with special educational needs from their regular classrooms (Dyson, 1998).

In doing so, education systems have failed to take into consideration the extrinsic factors that have contributed to the development and learning of these learners. Included in this population group are the street children, victims of socio-political discrimination, learners suffering from severe poverty conditions, victims of war, children suffering from continuing physical, emotional and sexual abuse from some other form of abuse or deprivation (UNESCO, 1994). These learners have been denied learning opportunities to gain knowledge, understanding and skills which is their fundamental right. In view of this practice of exclusion for a part of the population, there has been a visible increase in the special education learner population. According to UNESCO (1994) the goals of effective education should be to include these learners in regular schools and to reform school practices in order to accommodate their diverse needs.

For some countries, such as South Africa, including learners with special educational needs in general education classrooms by default has been the norm rather than the exception (Donald, 1994). With the lack of facilities, through socio-political practices and socio-economic conditions, some learners were included by default in the education system. This type of system of inclusion has been misused

and considered as a dumping ground in which the expectation of all learners was to learn in the same way. General educators were to apply the same rigid teaching methods to teach all learners without support. For inclusive education to be successful, it is important to address these variables. Thus, it necessitates organizational structures to include instructional strategies that are vital to the success of inclusive programming (Keenan, 1997).

1.2 THE MOVEMENT TOWARDS INCLUSION

The movement towards including learners with special educational needs in regular education classrooms is rapidly expanding in the international arena. The extent of expansion stretches across continents where educators are avidly seeking to develop a framework to apply the concept of inclusive education. To some it has become the chasing of a dream, whereas to others, it holds fears of far-reaching changes which could become too costly (Zionts, 1997). Despite the controversial beliefs, all researchers share the basic notion of “education for all”.

International trends towards an education system that respects diversity emerged strongly in 1990 through the World Conference on Education for All in Jomtien, Thailand (NCSNET, NCESS, 1996). A second conference in Salamanca, Spain (1994) provided a platform for further discussion to affirm the principle of including learners with special educational needs and to shape the agenda for an inclusive society in their initiatives. Furthermore, it was time for learners with special educational needs “to take their rightful place in a learning society” (UNESCO, 1994). The five basic principles of the rights of learners in the Salamanca statement on Principles, Policies and Practice in Special Education (UNESCO, 1994:10) propose that:

- Every child has a right to education and must be given the opportunity to achieve and maintain achievement at an acceptable level of learning
- All learners have unique characteristics, interests, abilities and learning needs

- Education systems must be designed and educational programs implemented to accommodate the diverse needs of learners
- Learners with special educational needs must have access to regular schools who should utilize learning strategies capable of meeting their needs
- Regular schools with an inclusive philosophy are most effective in combating discriminatory attitudes, creating welcoming communities, building inclusive societies and achieving education for all – moreover they provide an effective education for the majority of learners in a most cost-effective way.

(UNESCO, 1994:10)

With these principles in mind, the Salamanca Statement called upon all governments to:

- Give priority to policy and budgets so that education for all may improve, regardless of diversity
- Adopt a policy or law of the principle of inclusive education, including all learners in regular schools, unless there are compelling circumstances for doing otherwise
- Allow for networking and exchange with other countries
- Encourage collaboration in planning, monitoring and evaluating educational provision both for children and adults with special educational needs
- Encompass parents, community, and organizations for people with disabilities in their planning and decision-making processes regarding provision for special educational needs
- Focus on early identification and intervention strategies and
- Ensure that the context of systemic change and teacher education addresses the provision of special needs education in inclusive schools.

(UNESCO, 1994:11)

These principles and appeals from UNESCO to governments stimulated educators in certain parts of the world to initiate, design and implement education systems that embrace UNESCO'S (1994) principles of an inclusive system. It pre-empted the retreat of governments to redress the provision of service delivery in the education

of learners with special educational needs; thus the search for a conceptual framework for an inclusive education system. The movement that began with a relatively small number of committed individuals – mostly from Australia and the United States of America – had now gained impetus and recognition in the international arena (Dyson, 1998).

The recognition of inclusion as an ideal model of providing education for all learners does not come without any doubts, concerns and questions. Indeed, it is important to understand how and why inclusion became such a powerful philosophy in education and how we are to carry it forward.

As early as the late nineteenth and early twentieth centuries, the education of people with disabilities had become a concern for society. Already at that time the basic principle that was adopted promoted “education for all”. Gerber (1995) describes this as the beginning of “progressive inclusion”. As time passed, education systems gradually and progressively evolved from a voluntary to a gradual uniform system in which learners should be educated.

For some, the basis for the uniform system was to deliver a basic and specific kind of schooling. Certain countries utilised education to assist them in enhancing their economic performance or to mould their population into civilised citizens or to integrate all learners (Carroll, 1992; Hamilton, 1986). Others used education to ensure subordination, both racially and socially in a biased structured system (Nkomo, 1990). Whatever the priority, predetermined curricula ensured that the aims of the government were achieved. The steady development of education systems produced more conclusive results; and the more conclusive they became, the more exclusive educational practices became for specific groups of the population.

It was not surprising that at that point education for people with special educational needs became a bone of contention for national governments, specifically because some learners could not benefit from the predetermined curricula (McIntyre, 1993; Skritic, 1991). Thus, a solution had to be found. Dyson (1998) points out that

countries had three options to address the issue:

- Restructuring schools so as to accommodate special learners. However, it ran the risk of not fulfilling the learning process for other learners
- Accepting a certain failure rate – as long as the failures were not disruptive to learning of the rest of the learners or
- Setting up parallel school systems – one for learners with special educational needs and one for the regular learners.

Most countries opted for the latter, thus the establishment of segregated facilities. This ensured that all learners were receiving education. However, not all countries had attained a highly developed education system by then, which meant that not all learners were provided with consistent educational opportunities globally. In some countries educational opportunities were only made available to individuals with a more privileged socio-economic background, specific levels of ability (Dyson, 1998) or specific racial origins (Nkomo, 1990).

The stability of this pre-World War II era posed predicted expectations on educators, learners and schools. Society was confident that the education system was serving all learners. It was not until after World War II that practices of social injustice prompted society to reassess the education of all learners.

Perhaps the most important move towards change were the endeavours of educators and researchers to seek novel ways to address the educational needs of learners with disabilities. The social injustices of the World War II era gave rise to a great concern for the social justice and social unity in the developing democratic practices within a wide range of countries. The human atrocities, such as research conducted by the Germans in respect of intelligence tests, genetics and other human issues in the concentration camps (Burden, 1995) were perhaps the biggest eye-openers during and after the World War II era, which motivated a variety of countries to join forces to bring about social justice and cohesion.

Furthermore, the tightly ordered segregated and parallel school systems added to the concerns of society. Thus, social reformers enthusiastically sought to change

society through the schools. In order to provide an equitable education for learners with special educational needs, they sought to abandon the traditional separate, special school services.

The tightly ordered separate school system for specific groupings of learners became a bone of contention and was questioned on the basis of delivery, rights, capacity to discriminate accurately between academic and non-academic learners and educational benefits for all children (Pijl, Meijer and Hegarty, 1997). The issues of rights, equity and opportunity gradually surfaced in the educational arena. These issues challenged a wide range of social systems based on selection and segregation. Furthermore, issues such as race, gender, language, and other discriminatory practices observed at the time, further emphasised the need to address the rights, needs and opportunities for all learners. Lipsky and Gartner, (1989) report on litigation cases that ensued in the United State of America's Supreme Court in the 50's, 60's and 70's which were rooted in racial, socio-economic status and language discriminatory practices. However, resolutions emerged through the court in favour of the learners but only yielded unequal opportunities for learners (Gaylord-Ross, 1997). It was not until 1975 that the emergence in the United States of America of the 1975 Education for All Handicapped Children Act (PL 94-142), renamed in 1990 as Individuals with Disabilities Education Act (IDEA) that learners were ensured access to educational institutions and limited progress in regular schools emerged.

Benn and Simons (1972) report on similar developments in the United Kingdom where a common framework for the education system in both elementary and secondary schools was established. But it was not until the publishing of the Warnock Report (DES, 1978) that including learners with special educational needs in regular classrooms was considered in England.

According to Meijer, Pijl and Hegarty (1994), similar events occurred in other countries. Probably the most innovative concept, that of normalisation, emerged in Norway. It was later brought to the United States of America by Wolfensberger (1972). The normalisation principle attempted to provide social interactions and

experience compatible to those of society for adults and children with special educational needs. This principle promoted the educating of learners with special educational needs in regular education classrooms. The education of learners with special educational needs in regular education classrooms provided them with equal opportunities in education, housing, employment, social and leisure experiences. It was believed that this represented patterns of activities and opportunities enjoyed by their regular peers as closely as possible (Salend, 1998). Vislie (1995) indicates that this was a shift from the psycho-medical to the socio-political paradigm, which manifested in the economic and political developments that occurred after World War II. The concept sought to provide social interactions and experiences for learners with special educational needs which are compatible to those of "normal" society (Mordal and Stromstad, 1998; Haring and Mc Cormick, 1990).

Canada followed the United States of America by instituting Bill 82 for the education of learners with special educational needs and New Zealand followed suit (Ballard, 1991; Taylor, 1988; Ballard and Macdonald, 1998; Wilson, 1983). Despite the movement towards inclusion, researchers indicated that many ambiguities plagued this mainstream movement. Salend (1998) reported on several litigation cases that continued to fill the courts in the United States of America. Walker (1987) emphasised the fact that a parallel system of education continued in the United States and an investigation by Ysseldyke (1987) further confirmed concerns regarding the education of learners with special educational needs within an inclusive framework.

Dyson, Bailey, O'Brien, Rice and Zigmond (1998) clearly points out some of the ambiguities observed during this era, also called the mainstream era, all of which were documented in public papers and legal Acts for special education at the time. It is not disputed that the intentions and efforts of all these Acts and public papers were not sincere efforts to make education for all learners more liberal and humane. However, statements within the documents needed redress. Dyson, Bailey, O'Brien, Rice and Zigmond (1998) specifically refers to the United Kingdom 1981 Act that had its basis in the Warnock Report (DES 1975). Placement of learners with special

educational needs was based on specific assessment criteria which sought to determine the best way for learners to achieve educational goals in the available provisions.

Salend (1998) supports the view on ambiguities by pointing out that the Acts and public papers were too broad which, in the United States, led to much litigation. Dyson, Bailey, O'Brien, Rice and Zigmond (1998) further points out that conflicting statements within the Acts and Public papers were unclear and created confusion. Access was solely based on the assessment of pre-determined educational goals and the availability of space in a range of services. Furthermore, far less progress was made to determine who really should receive special educational services. Even less progress was made in establishing whether the quality of education provided was effective in terms of skills acquired, graduation rates, return to regular educational programmes and high school achievement (Lipsky and Gartner, 1989).

While some countries welcomed the coming of mainstreaming, others challenged the credibility of the concept. For example, it was observed that through assessment practices, learners were still being labelled, and others were being deprived of socially interactive experiences with their peers, depriving them of educational growth in a natural environment in which higher achievement, positive self-esteem, behaviour and emotional adjustment were dominant (Slavin, 1983; Lipsky and Gartner, 1989).

To some extent, mainstreaming was successful in countries such as Norway (Vislie, 1995) and Italy (Abbring and Meijer, 1994). The success was mainly due to the powerful support from their political principles. However, for many the success rate of mainstreaming was marginal, and researchers concluded that change could only occur with the help of a transformative, community-based and rights agenda (Pijl and Pijl, 1995; Mordal and Stromstad, 1998; Clark, Dyson, Millward and Skidmore, 1995; Thejane and Muthikrishna, 2000). The movement towards inclusion arose as a result of the international emphasis on the rights of learners, regardless of their diverse needs, to an appropriate education.

The inclusion movement does not come without questions. There are those for and against inclusion. Dyson, Bailey, O'Brien, Rice and Zigmond (1998) discusses three schools of thought regarding inclusive education, which reflects developments over a number of years in the literature on special needs education. First, he refers to the proponents of maintaining segregated facilities. Their argument is founded on a variety of reasons. Some propose that the existing structures must be deconstructed due to the vested interests that maintain them. Founded on the work of Tomlinson (1982) and other traditional radical sociologists whose analysis of educational systems indicate that socio-economic and, parents' advocacy groups would maintain existing advantages by keeping the structures of special education under the guise of mainstreaming (Bartman and Landman, 1993; Fulcher, 1989). Special educators, medics and other professionals argue that special education learners need special educational schools to provide them with an environment in which they can operate. Others, such as Walker and Bullis (1991), believe that mere placement of learners in general education classrooms does not reflect the best practice when implemented in the absence of critical considerations such as design and delivery of appropriate educational programmes and effective teaching strategies.

In reflecting on the idea of inclusive education as beneficial for social growth, research and literature Kanopasek (1990), Larivee and Horne (1991), Roberts and Zubric (1993) and Sabornie (1987), suggest that regular peers often reject non-handicapped learners. This was further compounded by the fact that negative attitudes of educators often cloud the situation. Gable and Laycock (1987), Landrum (1992), and Lewin, Nelson and Tollefson (1983), indicate that educators have negative attitudes towards learners with special educational needs. For obvious reasons, these include issues such as bigger workloads, lack of confidence in their own teaching strategies and ignorance of the benefit of teaching learners with special educational needs in the regular education classes.

The second school of thought includes those that are rights-oriented or ethics-oriented. Since the 1960's, there has been an emphasis placed on justice rather than on a welfare viewpoint (Freeman, 1992). Recently several researchers (Biklin,

1985; Ballard, 1995; Corbet, 1996; Stainback and Stainback, 1990; Lipsky and Gartner, 1996; Skritic, 1991) argued for inclusion on the basis of human rights, social justice and equity. It is believed that participation on equal terms in all common social institutions is a necessity for social justice and hence a democratic right. Also an important feature is a strong moral and ethical argument made for the “rightness” of inclusion (Van Dyke, Stallings and Colley, 1995). They believe that it is the best option for all learners as opposed to separating and classifying them as different. Schools are a reflection of communities. Thus, they serve all members of those communities and they all should be part of the school. Exclusion of learners with special educational needs from institutions is a practice of discrimination or as Abberley (1987) puts it, is oppressive on the basis of ethnicity, gender and sexual orientation. This viewpoint is close in line with that of the UNESCO (1994) principle of human rights.

Finally, there is a more practical view that promotes the use of education systems and institutions where inclusion of learners with special educational needs could be realised as an “Education for All” process (Dyson, Bailey, O’Brien, Rice and Zigmond, 1998). The literature produced over the past decade or two focuses specifically on the nature of inclusion and how to build education and school systems (Gartner and Lipsky, 1987; Skritic, 1991; Stainback and Stainback, 1998). Researchers have also conducted empirical studies that yielded general guidelines for schools to follow in establishing an inclusive school system (Ainscow, 1991b; Stainback and Stainback, 1990; 1992; Ware, 1995; Mastropiero and Soruggs, 1995; Sheppo, Hartsfield, *et al.*, 1995; Van Dyke, Stallings and Colley, 1995). In comparison to the earlier literature, a more concentrated effort is predominantly focused on the learners in terms of their difficulties and how to support them in a more pragmatic manner. A concerted effort is made to address areas such as the development of inclusive schools, teacher training, the role of education support teaching, innovative teaching methods, collaborative efforts and the empowering of educators to become more efficient in an inclusive approach. Surely this effort is more useful and enlightening to educators and is powerful in deconstructing old forms of special education in terms of vested interests to maintain the status quo.

It should be kept in mind that inclusive education implies a structural change and needs a thorough planning and designing of an innovative, flexible system that promotes access for all learners to the curriculum, regardless of their diverse needs. In addition, the environment must foster positive learning and development and active participation of the community. It does not mean that placing all learners in a regular education classroom is the “cure all”. Instead, it should be observed as an initial step in the process of integration and addressing diversity, not just in the educational arena, but in the broader framework of a society. Limited inclusive experiences in the educational field does not necessary mean that learners will automatically apply and transfer their inclusive learning practices in the wider social rights in areas such as employment, prosperity and social interaction (Dyson, Bailey, O’Brien, Rice and Zigmond, 1998); in fact, learning should take place in context. Inclusive experiences must extend into the broader community and society so that they are meaningful and beneficial in and out of school life (Stangvik, 1995; 1997).

1.3 TOWARDS AN INCLUSIVE EDUCATION SYSTEM IN SOUTH AFRICA

The development of the education system in South Africa has been complicated by its socio-political and economic structures of an oppressive minority government. Conflicts over the inequality in education structures have sustained a long struggle to redress the disparities of gross violation of human rights and disparities in education. While services for whites were exclusive, made gracious strides, and enjoyed a lion’s share of allocated resources, other races of colour were marginalised and excluded from many services, socialization and economic gains (Nkomo, 1990).

The adoption of a democratic government under the leadership of President Nelson Mandela in 1994 presented South Africa with a number of educational challenges. The imbalances of the past had to be redressed and transformation of the

education system by formulating new policies was a priority. An education system for all had to be addressed to meet international standards and trends in human rights. It was not surprising that new policies and legislation emerged with a strong focus on human rights.

A move towards a human rights perspective in education clearly included learners with special education needs. This meant that an education system had to be developed to accommodate all learners, regardless of their race, gender, and social and religious orientation in one education system. In view of this, the legacy of racial discrimination, neglect and marginalisation of various racial groupings of the Apartheid era was being addressed by the restoration of the rights of all learners.

During 1994 educational policies emerged that reflected the principles of the newly formed South African Constitution, such as the basic rights of all, access to a unitary curriculum, education for all and redress and equity. The idea of a democratically based constitution provided all learners with the basic right to a quality education. However, the right to a quality education is based on the capabilities of all learners and is further emphasized in later education policy documents and legislation. These documents such as the White Paper on Education and Training (1995), White Paper 2: The Organization, Governance and Funding of Schools (1995), White Paper on an Integrated National Disability Strategy (1997) and the South African Schools Act (1996) all emphasize the rights of all learners to equal access to the widest possible educational experiences and opportunities and a quality education, thus indicating the need of all schools to meet the diverse needs of all learners.

The education documents that emerged refer to two types of learners: the “ordinary” learners and those with special educational needs. The “ordinary” learners are the learners that can benefit from the general education system and the “special education” learners are those that encounter learning difficulties.

In view of this, education was confronted with a challenge to address the needs of two types of learners within a unitary system. Two task teams were constituted to

investigate the current situation and ways of addressing both types of learners in one system. These teams: the National Commission on Special Needs Education and Training (NCSNET) and the National Commission on Education Support Services (NCESS) refuted the two streams on the basis that there are extrinsic factors that contribute to the breaking down of learning in learners that we fail to recognize. These include issues such as violence, crime, poor language and communication skills, and HIV/AIDS that are prevalent amongst learners. All of these negative factors contribute to the breakdown of effective learning and development. Thus the presence of diversity prevails amongst learners in the education system. These issues are all considered to be barriers to learning and development. Furthermore, the report emphasizes that only when we focus on the nature of these barriers to learning and development can we really address the breakdown in learning. There are a variety of ways in which such a barrier to learning can manifest itself, for instance within the learner, within the environment, within the education system and also within the broader social, economic and political context (Williams, 2001).

The Ministry accepted the argument of the National Commission on Special Education and Training, thus recognizing that if the situation is viewed in the light that the system has not addressed diversity, many learners can be accommodated in the "regular" stream if educators receive the necessary training to assist them in their attempts. Thus only a small proportion of learners, according to their defects, would then need specialized assistance. The principle of the inclusion of many more learners into the regular stream must be adopted. Taking into consideration the recommendations of the investigation of the National Commission on Special Needs Education and Training (NCNSET), and the National Commission of Education Support Services (NCESS), education authorities are presently formulating this into legislature. A Draft White Paper: Building an Inclusive Education and Training System (January 2000) has been approved by Cabinet and was officially launched in August, 2001.

The White Paper clearly emphasizes the fact that inclusion is a never-ending process rather than a simple state of change (Williams, 2001). It demands an

increased participation of learners, which reduces the risk of their being excluded from curricula, cultures and local community centres of learning. Furthermore it believes that all learners can learn, need support, must be respected regarding their ethnicity, gender, race and HIV status and that education systems must provide enabling structures and apply teaching methodologies and strategies that would meet the needs of all learners.

Against the background of the essence of the White Paper (Department of Education, 2001), it is obvious that the Department of Education proposes radical changes to accommodate learners with diverse needs in the regular education classrooms. The main principle governing the approach to building the inclusive system is to create a system that would effectively respond to the diverse needs of learners and expose them to the best learning experiences and opportunities in learning.

The National Department of Education believes that by providing learners with the best possible experiences and opportunities to eliminate barriers to learning and development, key aspects can be identified that are the deterrents to learning and development of learners. One of the areas in which barriers may manifest themselves is in the curriculum. Issues such as teaching methodologies, the content of learning programmes, the language and medium of teaching, the management and organisation of classrooms, learning style and pace, time frames for completion of curricula, the learning material and equipment and assessment procedures and techniques all play a role in creating barriers to learning and development in the learners (Williams, 2001). It is therefore suggested that within the framework of the new outcomes-based curricula a child-centred approach to learning be applied. This approach clearly moves away from the traditional perception that problems lie within the learners. The focus should thus be on changing the organisational structures, curricula and teaching methods that might create barriers to learning and development, in order to enhance learning within the learner.

The emergence of the presence of learners with diverse needs in all classes is a sign of a transformation process towards global trends in an education system.

Learners with special educational needs now have gained access to both regular education classrooms and a unitary curriculum. The new global trend towards inclusive education is based on the principles of an ethos of support for all learners and educators and is geared towards a child-centred approach. South Africa has opted to follow this international trend. This implies that educators must be prepared to work with all learners with diverse backgrounds, orientation and needs, regardless of their difficulties. The current situation in South Africa presents many concerns such as large classes, the inability of educators to cope with the diversity, poor funding, and the lack of resources.

Co-operative learning is one instructional method that can assist educators to meet the diverse needs of all learners in inclusive classrooms. This instructional method is highly recommended and has many benefits to meet the needs of learners with diverse needs. (This will be discussed in chapter three.)

1.4 STATEMENT OF THE PROBLEM

It is clear that the inclusion of learners with special educational needs in regular classrooms has placed new demands on regular classroom educators. A paradigm shift from traditional, rigid teaching approaches, within an inflexible curriculum, to new, innovative and more effective approaches is needed within an outcomes-based curriculum in order to improve academic achievement among all learners. The need for a new approach implies that the restructuring and planning of the curriculum to include learners with special educational needs must be investigated so that these learners are not marginalised. In view of this, in-service programmes must be developed to empower educators with teaching practices compatible to an inclusive education system. Educators without training in inclusive classrooms may not be able to develop a constructive and supportive learning environment in which all learners may develop to their full potential. Therefore the professional quality of the teaching personnel must be developed. Not only is it necessary to train educators with in-service programmes, but a support system at district and institutional level, and special schools need to be developed. Resources must be

viewed as a provision within the system and must not be regarded as being solely for learners with special educational needs.

Relevant research indicates that co-operative learning methods provide a viable teaching and learning option in accommodating learners with special education needs in regular classrooms (Slavin, 1980; Johnson and Johnson, 1986; Madden and Slavin, 1983). Even though co-operative learning is highly recommended, it is only utilised sporadically in a few schools in South Africa. In some schools no attempt is made to accommodate learners with special educational needs in the regular classroom curriculum and a lack of creative teaching approaches is evident (Kagan, 1994). There may be a number of reasons for this, namely: a lack of knowledge of co-operative learning, overcrowding of schools or a lack of resources/support.

1.5 AIMS

The primary aim will be to determine whether the following intended outcomes of an in-service programme on co-operative learning for educators have materialised: The academic achievement, social skills and motivation of learners with special educational needs in the educational classrooms have improved. The following key research questions will need to be answered:

- Would learners be motivated towards learning and gain beneficial social skills if co-operative learning is used as a classroom strategy?
- Would learners with special educational needs and regular learners demonstrate improved academic achievement when co-operative learning is used as a teaching/learning strategy?

Secondary aims are the following:

- To assist educators in developing learning programmes using co-operative learning methods as a teaching approach within inclusive classrooms
- To provide in-service training for educators to implement co-operative learning methods in inclusive classrooms.

1.6 RESEARCH DESIGN AND METHODOLOGY

1.6.1 Research design

A research design is a plan or blueprint of how to conduct the research. It focuses on the end product. The questions that must be asked are: *What kind of study is planned and what kind of result is aimed at?* (Mouton, 2001). The design of this study can be described as evaluative in nature. The main aims of an evaluative research design are to establish whether the intended outcomes of an intervention programme have materialized (Mouton, 2001:160). A first important question in outcome evaluation is whether the participants have changed in the direction that the programme was planned. In this case this would refer to the following question: *Did the academic achievement of learners with special educational needs improve after these learners received co-operative learning instruction in inclusive classrooms?* According to Babbie and Mouton (1998:348) the standard evaluation design that addresses questions such as these is the “pre-test-post-test-design”. Thus design and methodology involve observations and measurements before the implementation of the intervention followed by the intervention. After completion of the intervention, another set of post-test measurements is administered.

Because the school’s co-operation was necessary for the implementation of the in-service programme, the researcher was unable to randomly assign schools to the conditions and use was made of purposive sampling (Mertens, 1998:77; Babbie and Mouton, 1998:350; Mouton, 2001:160).

1.6.2 Research methodology

Research methodology focuses on the research process and the kind of tools and procedures to be used (Babbie and Mouton, 1998:75).

1.6.2.1 Data collection methods

It is common in evaluation studies to utilize all available modes of observation, both quantitative and structured (pre- and post-tests) and qualitative and less structured (individual interviews, participation, observation) data collection methods as well as to analyze existing documents (Mouton, 2001). For the purpose of this study the following evaluative methods of data collection were used. They consisted of:

- Literature Review
- Integration of Quantitative and Qualitative Data Collection Methods.

(a) Literature Review

A literature review forms a vital component of the research process. A critical literature review (including relevant policy documents) will be conducted to provide a comprehensive understanding of what is known about co-operative learning, inclusive education and special educational needs (Mertens, 1998:53).

(b) Integration of Quantitative and Qualitative Data Collection Methods

The integration of evaluation data collection methods is the effective combination of qualitative and quantitative methods to probe the most in-depth exploration of a particular view. It includes using both qualitative and quantitative approaches to attain the most unbiased results (Babbie and Mouton, 2001).

Qualitative data collection methods

- **Participant observation**

In this study participant observation, where the researcher is simultaneously a member of the group she is studying, will be used (Babbie and Mouton, 2001:293).

- **Anecdotal/Field notes**

Field notes describe what occurs. The participating educators as well as the researcher write field notes to record what happens without inferring feelings to the participants. The notes include interesting terms, ideas from the participants, bits of information that are recalled, or changes in learner behaviour that are recalled (Maykut and Morehouse, 1994:73).

- **Semi-structured interviews**

In interviews there is direct verbal interaction between the interviewer and the participant (in this case the participating educators). A semi-structured interview is an oral, in-person administration of a standard set of questions that is prepared in advance (McMillan and Schumacher, 2001:40). The participant is asked questions and the responses are summarised or the direct responses are written down. This type of interview allows participants to answer more on their own terms. The researcher must have a specific focus in mind for the interviews within a range of other methods employed for the study. Semi-structured focus group interviews will be used to investigate the response and the experiences of the educators in the classroom while implementing co-operative learning lessons. The group situation provides the educators with an opportunity to express themselves and share their experiences with each other. The interviewer does not take part in the discussion to ask the questions but observes the interaction between the educators while they share their experiences and draw from each other's experiences for support.

Quantitative data collection methods

- **Standardised tests**

As a quantitative data collection method, a standardised test will be used as pre- and post-test to obtain more precise data on the progress learners made when the co-operative learning method was applied. Standardised tests are usually accompanied by norms, which allows for comparison in a pre- and

post-test situation. For the purpose of this study, the **South African Standardised Languages Test** was used as a pre- and post-test to ascertain whether the learners had made any gains when co-operative learning structures were used in a classroom situation.

- **Questionnaires**

For the purpose of observing the progress of the educators in training, a simple three-part questionnaire was developed in order to ascertain whether the educators understood co-operative learning and felt confident enough about using it. The first part of the questionnaire focus on the theoretical background of co-operative learning and was implemented after completion of Phase 2. The second part of the questionnaire focus on the design of the lesson plans and material development and was implemented after completion of phase 3. The third section of the questionnaire deals with the experiences of the educators in the implementation of co-operative learning and was implemented after completion of the programme.

1.6.2.2 Data analysis

(a) Qualitative data analysis

Qualitative data analysis is an ongoing process and does not occur only at the end of the study as is typical in most quantitative studies, findings are generated and systematically built as successive pieces of data are gathered (Mertens, 1998:348). Data is analysed with the help of content analysis. Content analysis is a technique for gathering and analysing the content of a text (which is anything written, visual or spoken that serves as a medium for communication). In content analysis, a researcher uses objective and systematic counting and recording procedures to reduce, consolidate, interpret and display data and allows a researcher to compare content across many texts (in this case, the transcribed texts of interviews, discussions and observations).

(b) Quantitative data analysis

As discussed earlier, in order to establish with some degree of plausibility whether the learners have changed in the direction that the intervention programme was planned, a pre-test-post-test approach is included. Standard quantitative analysis, such as a comparison of mean scores between the pre- and post-tests and a t-test will then indicate whether there is a statistically significant difference between pre- and post-test performances of learners (Babbie and Mouton, 1998:349). The results would indicate whether the dependent variables yield a level of statistical significance and the statistical package for the social sciences programme (SPSS) will be used to process the raw data from the pre- and post-test.

1.6.2.3 Research procedure

In the first place, application will be made to the Free State Department of Education to seek permission to conduct the research project. Since co-operation of schools are imperative, random sampling is not possible therefore the use of purposive sampling is used (Mertens, 1998; Babbie and Mouton, 1998; Mouton, 2001.)

The Free State Department of Education will be approached to identify two primary schools to participate in the research. After the schools are identified, the schools will be briefed on the research project and the procedures. The participating personnel are familiarized with the experimental design and implementation thereof, followed by preparations to train the educators.

The researcher will develop an in-service programme on co-operative learning. Once the in-service programme is designed, the experimental group of educators will be trained on co-operative learning. Specific training will be provided on how to implement co-operative learning, programme. During the training, educators will be provided with a manual for implementation and consultation.

Seventeen hours of training time will be scheduled for the total implementation of the in-service programme. The educators are trained and assisted in the designing and implementation of the co-operative learning lessons. A week is set aside for the experimental group educators to teach social skills to the learners. These social skills are necessary for the learners in order to work in groups. After the social skills are taught, the educators of the experimental group will implement 15 lessons in Afrikaans as a first language to the experimental group. The educators are trained on how to observe the learners in the experimental group. It is expected that the educators would keep regular notes on the academic and social performance of the experimental group. The control group introduce the same themes and 15 lessons as the experimental groups. The same outcomes for the 15-lesson period are expected of them. Consistent monitoring and support will be provided to the educators on an on-going basis. A language pre-test will be conducted prior to the implementation of the 15 lessons. A first language test (HRSC) will be used to establish that each class had representation of learners with language needs. The two experimental classes will proceed to implement the fifteen lessons on the theme, outcomes and material provided. The control group classes will also proceed to conduct teaching on the outcomes and themes for the 15 lessons in their regular fashion. On the completion of the 15 lessons, both the control and experimental group will complete a post-test (the same as the pre-test).

1.7 DEFINITION OF CENTRAL CONCEPTS

Some of the key concepts that are used during this study will be defined.

1.7.1 Co-operative learning

Co-operative learning refers to a working together of learners/people in heterogeneous groups. These groups consist of learners of different achievement levels, race, gender, cultures, and religious orientation. Within the group situation,

all learners work towards common goals. Each lesson has an academic and social goal, which all group members have to work towards to attain. Consistent monitoring and support will be provided to the learners from the educators on an ongoing basis. There are four important skills needed for co-operative learning groups, viz. leadership (each group has a leader), communication (learners work together co-operatively and share ideas in a positive, constructive manner), trust building (learners become acquainted with the group members and create a common bond) and co-operation (learners have to co-operate with each other so that they can problem solve to reach a common goal). The process or way in which the goal is achieved is just as important as the goal (Kagan, 1994).

1.7.2 Inclusion and inclusive education

Inclusion can be defined as a process of recognizing and respecting the differences among all people and building on their similarities. Within inclusive education both learners and educators are supported in the educational system and a full range of support services is provided to meet the learning needs of the learners. The focus is on teaching and learning, with the emphasis on the development of good teaching strategies, which will benefit all learners. Therefore, inclusive education focuses on overcoming barriers in the educational system that prevents it from meeting the diverse needs of all learners (Engelbrecht, 1999).

Against this background, including learners with diverse needs along with their peers in the regular classroom or local community schools is the main focus. Regardless of the learners' needs, educators are to provide an educational programme that should be conducted in such a way that learners with special educational needs derive the best possible educational experiences from them. A variety of teaching and support strategies must be implemented (Department of Education, 2001).

1.7.3 Learners with special educational needs

Traditionally, policy makers and practitioners referred to learners who had “problems” of some kind, who experienced difficulties, or were likely to experience difficulties within regular classrooms as those who had “special needs” and hence required specialized support (Howell, 2001). Although there has been increasing criticism that the category of “special needs” has become a catch-all phrase and was reconceptualised in 1997 as “barriers to learning and development”, this thesis will use the concept “learners with special education needs”. It will refer specifically in the widest possible way to learners with diverse needs that experience difficulty in academic and social learning in educational environments. For a variety of reasons, these learners find difficulty in coping and adapting to the regular learning process in the mainstream classroom.

1.8 STRUCTURE OF PRESENTATION

Chapter 1 provided an orientation to the research, research problem, research design and methodology, stating the motivation for the research within the specific South African context.

Chapter 2 and **3** will provide a literature review of the education of learners with special needs in South Africa, and co-operative learning.

Chapter 4 will focus on the development of an in-service programme on co-operative learning.

Chapter 5 will describe the research design and methodology used to evaluate the impact of the in-service programme on co-operative learning on educators and learners with special educational needs.

Chapter 6 will present the research findings and discussion of the findings.

Chapter 7 will focus on a summary of the research, the conclusions and recommendations.

CHAPTER 2**THE EDUCATION OF LEARNERS WITH SPECIAL NEEDS
IN SOUTH AFRICA****2.1 INTRODUCTION**

South Africa has adopted the concept of inclusion in its education system. In order to understand inclusive education in the South African context, we need to review the unique circumstances regarding the development of education for learners with special educational needs in South Africa.

The transition of South Africa from a minority government to a democratic government has created an expectation of full participation of all its citizens in policy development and the resolution of conflict through the re-apportionment of the balance of power. Through such democratic participation, reforms to correct past errors can be addressed. One of the errors of the apartheid era was to waste the potential of a large section of the population through racial discrimination and disparities in all aspects of life, including education. For example, black learners with special educational needs had little or no support in their educational programmes, while white learners enjoyed well supported and sophisticated programmes. Donald (1993) estimates that the number of learners with special educational needs is higher than the international estimates which constitutes almost 25% of the learner population.

The education system under the apartheid government had a devastating impact on the creation and reproduction of special educational needs (Csapo and Donald, 1989; Donald, 1993; Skuy and Partington, 1990; Gwala-Ogisi, 1990). The circumstances within the structure and the process of education, of which social

relationships acted to perpetuate the interest of the economy and a dominant power structure of society, was the most powerful force that left the South African society with a legacy of a vast population of learners with specialised educational needs. The experiences of the large marginalised population cannot be explained in simple terms. Instead we need to understand the unique situation of South Africa in its historical context.

This chapter will focus on the development of special education in South Africa, critical analyses of the current situation, the implementation of inclusive education in South Africa, where learners with special educational needs are in the mainstream, factors that need to be taken into account for inclusion, specific areas that need to be addressed on inclusion in the South African context, and effective strategies for inclusion.

2.2 THE DEVELOPMENT OF SPECIAL EDUCATION IN SOUTH AFRICA

South Africa initially followed the same trend as many other countries in its development of special education. It was initiated as a concern of religious organisations for learners with disabilities, followed by state intervention, implementation of special schools for specific disabilities and finally the growing awareness of interest and advocacy groups that learners with special educational needs can be educated in isolation. However, special education in South Africa differs in one aspect, from that of the rest of the world. Philosophical and socio-political ideals had a great impact on the present crisis in special education in South Africa. The nature of the crisis is embedded in the structural conditions of a political system and its changing links between race and class (Wolpe, 1988). The system had its foundation intimately connected with the development of a segregated social policy linked to the rise of industrial capitalism in the late nineteenth and early twentieth century (Nkomo, 1990).

2.2.1 Early years

The local inhabitants of South Africa, such as the Khoi and San people as well as sub-tribes, practised tribal customs, which constituted a form of non-formal education. However, no accommodation was available for children with special educational needs. The practised custom was to exterminate children with visible or conspicuous differences, as such children were viewed as a bad omen sent by the ancestors.

2.2.2 Colonial era

The first colonisation in South Africa originated with the arrival of the Dutch in 1652. During their rule in South Africa (1652 – 1795) a schooling system was implemented in which separate schools were established for whites and slave children (under the control of the church). This marked the beginning of an era of segregated education that continued to haunt South Africa until 1994.

The arrival of the British (1806) initiated a formal secular education system with English as the official language. It is evident that if English became the official language of instruction, exclusion of specific languages and cultures of native communities were not recognised. It was not until after the Anglo-Boer war (1899-1902) that education assumed a more characteristic form. White children were provided with free and compulsory education, while black/native learners received “mission education” provided by white missionary educators. To a large extent, the social policy relating to education and schooling affirmed the maintenance of cheap labour, a black migrant work force and a stabilised white working class for the then growing mining industry. Providing separate education ensured that specific racial groups were equipped with skills compatible to their jobs. Education thus secured the reproduction of a labour structure along racially defined lines (Nkomo, 1990). This structure of segregated schooling clearly signified the beginning of a formal system of inequalities and equity in education.

Educating learners with special educational needs nationally only emerged when the Grimly School for the Deaf was established in Cape Town in 1863 (Du Toit, 1996). Schools such as Dominion Grimly School for the Deaf (Whites) in Cape Town, and later the Dominican School for the Deaf at Wittebome, Cape Town (Coloured children) followed. Further interest in disabilities by other religious institutions saw the emergence of the Dutch Reformed Church School, called the "Doofstommen en Blinden Instituut" at Worcester and the Athlone School for the Blind. These were private enterprises and not funded by the State. It was not until the enactment of the Vocational Educational and Special Education Act of 1929 that the Department of Education committed itself to adopting the responsibility for special schools for learners of specific racial groupings. However, the exclusion of Africans from these schools reaffirms the marginalization of the education of black learners. The churches continued to assume the responsibility for black learners with disabilities (Nkomo, 1990).

Colonial discriminatory practices and attitudes were ingrained in all facets of life. Inferior education systems for the populace other than white were adopted and implemented, while white learners reaped the benefits of a superior free, compulsory and progressive education system. The practice of depriving of people of colour from full access to an equal education system was designed by a dominant minority group to subordinate them, both economically and socially, in a racially structured system (Christie, 1991).

One can only conclude that in the first two decades of the twentieth century schooling for learners with special educational needs was developed along racially defined lines. Furthermore, the option of blacks to permit children with special educational needs to attend schools, was left to the discretion of the parents or the schools.

2.2.3 The apartheid era

The victory of the National Party in 1948 marked the beginning of an era of overt

and oppressive economic and political practices along racially defined lines. Inequalities in education were commonplace. The foundation of the policies of the National Party was the 1950 Population Registration Act, which neatly classified its population into racial pockets - Indian, Coloured, Black and White. Furthermore, the establishment of 10 separate homelands confirmed the policy of separate development, which included education. The policy formation was in response to the labour and social crises brought on by the secondary industrialisation and the rise of monopoly capitalism (Nkomo, 1990).

This specific form of industrialisation and policy development brought about the creation of a black migrant workforce and a break-up of black families (Nkomo, 1990). There is no doubt that this system created chaos within family structures of the black populace.

The State further committed itself to extending its control over blacks by the promulgation of the Bantu Education Act (1950). It was an attempt to stabilise the urban working class, produce a semi-skilled workforce, and prevent juvenile delinquency and political militancy among the urban working class.

Compatible and separate education systems were to be established. Seventeen education departments were established under the control of the central government, with vast disparities in the per capita funding among racial groups. Economic, social and educational gains were based on the colour of one's skin. The inception of Bantu education was met with severe opposition in 1956, but its life span was extended. The opposition collapsed due to lack of organisation in the opposition groups.

Despite the opposition, special education survived and flourished for white learners, expanding rapidly. The formalisation of various new acts assured an improved education for the white learners with special educational needs. Provision was also made for quality teacher training programmes at white universities or colleges.

Special schools for the blind, deaf, epileptic, cerebrally palsied and physically

disabled were initially established, followed by the education of learners with minimal brain dysfunction (1969), autistic learners (1971), and the severely handicapped (1974) (Gwala-Ogisi, 1990). While whites enjoyed and profited from these progressive special education programmes, people of colour, especially blacks, were denied a free and compulsory education. The missions of religious institutions still assumed the responsibility to provide services for the black learners with special educational needs. Transference of all special schools only occurred as separate education departments were established after promulgation of the following acts: The Bantu Special Education Act (1964), Coloured Persons Education Act (1963), and the Indian Education Act (1965). Servicing of special education was highly dependent on the funding available to the departments. Since the per capita funding rate for departments of colour was way below that for white education, special education programmes in the Coloured, Indian and Black education systems suffered tremendously, to the point that some were non-existent (Kriegler, 1996). In fact, Du Toit (1996) states that severe discrepancies prevailed in both quality and quantity and reports such as *The Report of the Work Committee: Special Need* (1988) and *Education for the Black Disabled* (1987) clearly verify these facts. The gross disparities among racial groups in the delivery of services were met with distaste, which clearly surfaced in the uprising of learners in the 1980's. So severe was the opposition that the government was forced to make radical changes. However, mounting pressures throughout the country for quality educational services and programmes clearly indicated that South Africa was ready for a socio-political and educational change that would benefit all its citizens.

Towards the end of the apartheid era, the situation in special education was viewed as critical. Not only was the system fragmented and costly, but it was also quadruplicating services with each department of education holding its own categories of special educational needs, and with a general lack of co-ordination. Furthermore the disproportionate distribution of resources and trained professionals in the field of special education gave rise to an ill-prepared system of special education. To compound the situation further, it was difficult to diagnose special educational needs without appropriate tools or to diagnose specific special educational needs in the South African context, given its socio-political history (Hlongwane, 1993).

The apartheid era with its dominant socio-political ideals that prevailed in South Africa, its ethnic barriers and political disenfranchisement, used education as a means to control a labour structure based along racially defined lines. Inferior and segregated education for people of colour was designed to reproduce the social relations prescribed by the apartheid ideology. Specific bodies of knowledge and skills were prescribed by law for each racial grouping as well as the production of attitudes for each group within the socially constructed apartheid pyramid. Yet, with all the planned social engineering, the social reality of apartheid produced a consciousness among learners for educational change, which eventually gained recognition. The struggle continued until the formation of the government of National Unity in 1994. The commitment of the new government to education for all signified the beginning of an era of full participation from all in the development of an education system that would benefit all South Africans.

2.2.4 The democratic era

Transforming South African society and education posed a great challenge for the newly formed democratic government. Even before the victory of the African National Congress under the leadership of Nelson Mandela in 1994, influential reports like the NEPI Report (1995) had already surfaced and identified key focal areas for the future of education. Donald (1996) delineates four principles of significance that were addressed in these documents for learners with special educational needs:

- The right of every child regardless of race or sex to an effective and appropriate education service
- Democratic participation of relevant parties
- Redress of educational inequalities to include the disadvantaged
- Anitary system and approach (Donald, 1996:76)

This clearly indicated that the citizens of South African were preparing to address the ills of the past. But the issue that remained a headache was how best to meet

the needs of learners experiencing difficulties in learning in South Africa. In spite of the government's commitment to the education of learners with educational difficulties, service delivery for learners with special educational needs was a priority. As discussed earlier, the delivery of services for special education in the apartheid era was generally inadequate and unacceptable.

The Constitution (Act 108 of 1996) focused on the establishment of a democratic state and common citizenship by an emphasis on the values of human dignity, the achievement of equality and the advancement of human rights and freedom (section 19). In establishing an education and training system for the 21st century, the special responsibility to implement those values and to ensure that all learners with and without disabilities, pursue their learning potential to the fullest, is recognised in various documents (Department of Education, 2001).

The appointment by the government in 1996 of a commission to investigate the education of learners with special educational needs clearly indicated the government's commitment to quality education for all. The focus of the work of this commission was to develop guidelines for the development of policy around all aspects of special needs and support. The central findings and recommendations posed by the National Commission for Special Needs in Education and Training was completed by November 1997 and released to educational institutions and stakeholders for public comments and advice. Clear guidelines, a vision, principles, key strategies, a framework for the future, and an implementation system are detailed within this report. Based on the recommendations in the report, a consultative paper (Department of Education, 1998) was released, the submissions and feedback of social partners and the wider public were collated and have informed the Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System (Department of Education, 2001).

In the interim, Provincial Education Departments continued to service learners with special educational needs through learning support programmes to support learners regarding specific academic skills.

2.3 CRITICAL ANALYSIS OF THE CURRENT SITUATION IN SPECIAL EDUCATION

As discussed earlier, the development of special education in South Africa has been complicated by the socio-political and economic structure of the pre-democratic, oppressive minority government. Conflicts over the inequality in education, specifically for those learners with special educational needs, brought about a crisis that gripped South Africa in the field of special education. Since most of the population had previously had only limited access to educational opportunities, and been subjected to inferior education and inefficient, fragmented educational bureaucracy which had separated and marginalised learners from the mainstream and reserved the highly specialised services for only a limited number of learners, it was now time for the new government to address these issues urgently. As stated earlier, the new Constitution and other influential reports and documents now focused predominantly on freedom, human rights, and equality, thus discrimination against any groups became illegal. The South African Schools Act (1996), for example, clearly states that, where possible, education for learners with special educational needs must be provided for in general education schools (Marais, 2000). This provided opportunities for the education for all learners with special educational needs to be addressed in all centres of learning. In some provinces in South Africa educators are already looking at options of how best to implement an inclusion model. But, once again, are our educators prepared to address the needs of a diverse population, be it educational, emotional or cultural in inclusive classrooms?

2.3.1 Educational support services for learners with special educational needs

The support services provided for learners with special educational needs in South Africa under the apartheid government were based on the funding from central government. The vast disparities in the per capita funding among racial groups

contributed greatly to the provision of inadequate services and resources for all learners, including learners with special educational needs. While white special education services made gracious strides, Africans, Coloureds and Indians suffered either by the slow progression of special education programmes or the non-existence of such programmes (Kriegler, 1996). It is, therefore, evident that the marginalized population lacked educational support for learners with special educational needs. In addition, since there was no compulsory and free education for black disabled learners, the commitment to provide support services for learners with special educational needs were virtually nil (Gwala-Ogisi, 1990). Often the needs of learners with special educational needs were sacrificed for "more pressing" needs. Little regard was paid to the development and growth of the child. Thus, with the development of the NEPI Report (1992), service delivery was carefully addressed to ensure that all learners received equal opportunities to education. The NEPI Report (1992) recognised that there was a high percentage of learners who would need support (5%-20%). Bearing this in mind, the report further emphasised the need to examine intervention programmes and support services to assist learners in a process of social transition. The NEPI Report (1992) also specifically identified areas such as academic and learning difficulties, physical health problems, emotional concerns, career educational needs, life skills and poverty related difficulties.

At present there is no formal legislation on support services but, as discussed earlier, in 2001 the National Department of Education released a White Paper: Building an Inclusive Education and Training System (2000) which addressed the concerns identified in the NEPI Report (1992) for learners with special educational needs. This White Paper: Building an Inclusive Education and Training System (2001) and the Integrated National Disability Strategy (1997) both adopted the development of one system which would cater to the needs of all learners in an inclusive environment. However, we need to look at all categories of learners as having special needs, e.g. Early Childhood Development, Provisioning and Organisation of Schooling Systems, General and Further Education, Higher Education, Adult Basic Education and Education Support Services. We are at the stage where these areas are being addressed within the schooling system.

2.3.2 Poverty

Another factor that played a major role in the previous dispensation, was the economic-political structure that prevailed during the apartheid era. Distribution of economic gains was controlled by government policy through education. The marginalisation of groups and their exposure to inferior or mediocre education programmes that ensured that they were skilled for manual labour only, have left a large portion of the population far behind in the field of academics, skills and attitudes. Presently this large population is struggling to make a living or living in inadequate conditions. The unequal distribution of economic resources created a culture of poverty.

The ties that bind the poor are usually self-perpetuating and form cycles that are hard to break, e.g. poor health, poor living conditions, poor nutrition, and lack of resources to afford adequate education. Families have to deal with issues such as unemployment, lack of finances to provide for their basic needs, limited emotional and social support from the community, poor health, lack of access to appropriate education and early prevention programmes for their children with disabilities and a lack of income-generating opportunities for families of learners with disabilities (Thejane and Muthikrishna, 2000). There is a systematic relationship between social conditions, education competency and intellectual development. The conditions surrounding poverty frequently result in handicaps such as poor cognitive development, mild retardation, learning deficiencies and emotional handicaps (Gwala-Ogisi, 1990) all of which have contributed to the present disposition of the majority of our population. In view of this issue, it is necessary to consider poverty as a contributing factor in barriers to learning and development and it should therefore be a focal point of concentration. It is only when we focus on the barrier to learning and development that we can address the prevalent breakdown of learning. At this point the government is making attempts to address the issue of poverty through innovative programmes funded by international donors. New schools are being built, learning support resources have been acquired, and feeding schemes and special projects such as pilot programmes in inclusion are being implemented by the National Department of Education (2000) in Kwa-Zulu Natal, Eastern Cape,

North-West, Mmapumalanga, and the Northern Cape. However, these pilot projects demand INSET programmes on new ways of addressing the needs of learners with special educational needs in inclusive environments. In terms of resources, the Integrated National Disability Strategy (1997) recommends that basic services should be provided to the poor by inter-departmental collaboration so that poverty does not contribute to the exclusion of learners with special educational needs. Likewise educational opportunities as well as systemic preventative services and community-based support groups are to be implemented for families to prevent the perpetuation of exclusion based on the status of learners with disabilities and their families (Thejane and Muthukrishna, 2000).

2.3.3 Free and compulsory education

Access to a free and compulsory education was restricted to whites only. Major difficulties emanated from the fact that black education was not compulsory. Service delivery was difficult, especially around assessment. Adequate assessment tools were not available and compatible with specific cultures and language groups. Furthermore, the attendance of school-aged children was below the norm, therefore creating a "Post generation," i.e. learners who missed out completely from education due to environmental, social, economic or political factors. The numbers are great and have yet to be established.

Since 1994, a new South African School's Act (1999) has been established. This Act clearly stipulates that every parent is responsible for registering learners of compulsory school age at a school including learners with special educational needs. Admission policies for learners have been established and are constantly being reviewed. At the same time provision is made within the policy documents for free education for all learners who are unable to submit school fees, including those with disabilities.

2.3.4 Parent participation

The inclusion of parents in the education of their children provides a link between special and regular education. Since the parent is the main individual that interacts with the child, it is he/she that can provide educators with pertinent information relevant to the child's development and progress. Excluding the parent excludes a valuable link in the diagnostic, assessment or placement process of a learner. The co-operation of an informed parent is invaluable.

The Integrated National Disability Strategy (1997), National Commission of Special Needs in Education and Training and the White Paper: Building an Inclusive Education System (2001) all suggest that government departments disseminate information to parents and form partnerships so that they can become more actively involved in their children's education. The South African School Act (1999) clearly states that parents must be informed of their rights and responsibilities via the governing body. They also have an obligation to ensure that learners attend school regularly (School's Act: 39, 40). This clearly indicates that parent participation in a learner's learning is of vital importance.

2.3.5 Language diversity

Language diversity has played a major role in contributing to a large special education population. South Africa's complex, multilingual society has been at the mercy of the state language policy that established English and Afrikaans as official languages. Black languages were viewed as unscientific (Kunutu, 1996). The exclusion of native languages in school learning, community values in school activities, and the authorities' refusal to foster language and cultural strengths has placed black communities educationally at a disadvantage. Cummins (1983) argues that the exclusion of such important empowerment tools fosters barriers to learning and development amongst learners.

Already the National Department of Education has made allowances for learners to be instructed in their mother tongue. However, complications arise when parents are determined to place their children in classes where instruction is not conducted in the learner's mother tongue. Furthermore, educators often experience difficulties in developing appropriate support mechanisms for second language learners.

2.3.6 Curricula

The establishment of the National Education Policy Investigation (1993) was the initial step towards developing a unitary education system for South Africans. This investigative team draws its strength from five basic principles:

- non-discrimination
- representation and presentation from all
- national orientation
- a unitary system and
- redress of inequalities and the disadvantaged.

Bearing these principles in mind the National Department of Education proceeded to investigate a system in which all learners could benefit from one system. One of the most serious barriers to learning and development was embedded in the curriculum. The inflexible nature of the curriculum prevented learners from having their needs met. In the research conducted by the National Commission for Special Needs in Education and Training (NCSNET, 1997) it was discovered that when learners were unable to access the curriculum, a breakdown in learning occurred. In all phases of the curriculum, key components such as style, teaching methods, tempo of teaching and learning, the content of the learning area, classroom organisation, and materials are used in the teaching and learning process (Department of Education, 1997). Often, through inadequate training, educators use teaching styles and methods which may not meet the needs of some learners. Likewise, the tempo, pace and teaching style may only be set for learners who learn faster. These factors contribute to stifling the learners' ability to gain equal access to

the curriculum. Limitations such as these as well as the content of the curriculum often fail to develop and extend the learner's knowledge base. Furthermore, inadequate materials, lack of assistive devices, and effective assessment procedures used in the pre-democratic era often prevented the learning of learners with special educational needs to take place (Department of Education, 1997).

A development that preceded the report of the National Commission in Special Education and Training (1997) was the introduction of an outcomes-based curriculum. This curriculum was introduced to facilitate both the transformation of an education system and the implementation of an inclusive education system (Naicker, 1999). One of the most beneficial aspects of an outcomes-based education system is that it provides conditions and opportunities for all learners that will encourage them to achieve their outcomes. The old, rigid curriculum has now been developed into a curriculum that has the capacity to deal with diversity, is flexible and believes that all learners can learn and succeed, but not at the same pace and in the same way (Spady, 1994).

Within the South African context, outcomes are set as clear outputs that the learners are expected to demonstrate at the end of a learning experience. In other words, outcomes are actions and performances that embody and reflect learner competence in using content, data, ideas, tools and analytic strategies in learning (Spady, 1994:2). Outcomes are established according to the learners' needs. When these outcomes are established, educators are to develop activities and utilise innovative teaching methods that would meet the needs of all learners. Spady (1994) further refers to expanded opportunities, which he defines as mechanisms that are used to meet the needs of diversity within learners, such as pace and styles. Through the use of effective teaching methods that would facilitate learning and development, one can effect learning that would be beneficial for a diverse learner population. Specific modifications should be made to the curriculum to effectively address the needs of learners with diverse needs in the regular classroom (Marais, 2000).

2.3.7 Teacher training and professionalism

Throughout the Apartheid era, the historically advantaged universities provided special education diplomas to its white education students, preparing them to deal and participate in the education of their special education population. Most historically disadvantaged universities were not equipped with such programmes. For example, in 1983, the University of Zululand provided a single semester course in the overview of special education (Gwala-Ogisi, 1990). This, of course, was inadequate preparation for educators to accommodate diversity in the classroom.

There are many under-qualified and unqualified educators and special educators that assume roles that are beyond their capabilities given the complex nature of South African learners requiring special education support (Naude and Van der Westhuizen, 1996). The low per capita spending on black education has produced under-qualified and unqualified educators, a high pupil-teacher ratio, and an estimated shortage of about 200 000 educators in 2000 (Hofmeyer, 1995). Based on this information, the deterioration of educator morale and development needs urgent attention. A National Teacher Education Audit in 1995 to determine the quality of training received and the morale and development amongst educators, revealed that the capacity of pre- and in-service education courses was inadequate. Since then several initiatives were established such as a teacher's Code of Conduct (SACE, 1995), Norms and Standards for Teacher Development (COTEP, 1998), and union led proposals for the development of educators (SADTU, 1998). Already current regulations specify that educators are to complete 80 hours of in-service training per year. At the same time additional funding has been set aside for the upgrading of under-qualified educators (Porteus *et al.*, 2000; Hofmeyer, 1993).

The Minister of Education issued a four-year strategic plan document (Tirisano document, 2000) in which educational priorities are clearly defined and planned for as priorities. Five projects are addressed in this document. The strategic plan is to address School Effectiveness and Educational Professionalism, Literacy, Further and Higher Education, HIV/Aids and Organisational Effectiveness of the National and Provincial Departments. Within the strategic area of School Effectiveness and

Educational Professionalism a project has been earmarked to address the “Status and Quality of Teaching”. One of the most important strategic objectives is to ensure the development of the South African Council of Educators (SACE) as a professional body of educators. Activities which have been planned, include the development of programmes for educator development and the development of a framework on the role of SACE as a professional body for educators. The outputs for the programme are listed as educator development and the upgrading of under-qualified and unqualified educators and the capacity of educators to implement curriculum 2005. This signifies that, included in this programme, teaching methods will be addressed because, in order to promote effective learning, effective teaching methods must be applied (McNamara, 1992) within the time frame stipulated by the Minister of Education (April 2000) and an ongoing process is envisioned.

2.3.8 Educational approaches to the curriculum

Yet another dilemma arises. A lack of funding and resources, under-qualified educators and rigid teaching methods have placed the majority of the learner population and educators under great stress. Large classes and a wide range of learner ability within one class poses difficulties which educators attempt to solve with rigid teaching methods and a rote learning approach (Adams, 1996). The rigid teaching approach is clearly not aimed at bringing about meaningful learning and does not allow for active participation of learners in their own learning. Instead, knowledge becomes fragmented and lacks context and relevancy. It is, therefore, necessary to consider alternative approaches to teaching and learning to provide meaningful, relevant and effective learning programmes for all learners.

The traditional teaching approach that assigned learners to being passive recipients of facts and knowledge by the educator has come under criticism by researchers such as Freire (1972). Today, teaching that reduces the learners to empty vessels with the educator pouring in knowledge and the learner pouring it out at test time, is discouraged and fails to realise the outcomes of the learners (Jacobs and Gawe, 1998). Instead, active participative approaches are recommended as alternatives to

this passive approach. This approach is based on the principle that knowledge is the construction of the individual learner. The perception of each learner depends on the individual's cognitive style and partly on the learner's past experiences. A learner's past experiences, intellectual abilities and cognitive style are different and unique (Jacobs and Gawe, 1998). It is understood that the knowledge the educator brings is intended to enrich learning for the learners rather than to replace the learner's knowledge.

The central outcomes of an outcomes-based approach in South Africa promote skills such as critical thinking, co-operation among learners, organisation skills, research and analysis, the use of Science and Technology and problem solving skills. The use of a participative approach to the curriculum allows for these critical outcomes to be realised. A characteristic such as flexibility, which makes accommodation for learners with special educational needs within a co-operative classroom atmosphere, provides access to the curriculum. In the United States of America similar outcomes are promoted. For example, lessons in a school in New Hampshire (Jorgensen, 1995) share characteristics such as:

- There is no one right answer;
- All learners can answer the questions;
- Questions enable all learners to learn;
- The questions involve thinking, not just answering;
- The questions make learners researchers;
- They motivate the learners to learn; and
- The learners enjoy the questions and make a concerted effort to answer them.

The participative approach in an outcomes-based curriculum can be promoted with the help of co-operative learning. Within a co-operative learning approach learners are provided with a variety of opportunities and experiences to practise critical thinking, logical thinking and co-operation; to build on prior knowledge; to analyse and to experience a vast number of teamwork activities. To make the paradigm shift from passive to participative learning demands extensive promotion and training for educators.

2.4 THE IMPLEMENTATION OF INCLUSIVE EDUCATION IN SOUTH AFRICA

The implementation of an inclusive education system in South African schools is based on the principles of the South African Constitution (1995), the recommendations of the Integrated National Disability Strategy (1997), The Report of the National Commission on Special Needs in Education and Training (1997), the Draft White Paper: Building an Inclusive Education System, (2000), the strategic plan of the Minister of Education's Tirisano Document (2000) and the Education White Paper 6: Special Needs Education: Building an Inclusive Education and Training System (2001).

2.4.1 Report of the National Commission on Special Needs in Education and Training (1997)

As discussed earlier, the report of the National Commission in Special Needs Education and Training (1997) and the National Committee on Education Support Services (1997) provided guidelines and recommendations regarding the key strategies to achieve an inclusive education and training system.

2.4.1.1 *Vision*

The joint report of the two bodies recommended that the education system should promote education for all and foster the development of inclusive and supportive centres of learning. These centres of learning were to promote active participation of all learners in the education process in order to enable them to develop and extend their potential to become contributing and participative members of society.

2.4.1.2 Principles

Principles and values embedded in the constitution formed the basis for the work of the Commission. These are the right to equality, no discrimination, respect for the diverse needs of all, the right to equal benefit and protection from the law, addressing the inequalities faced by disadvantaged groups in the past, the creation of opportunities for all learners, and an education system that is accessible and responsive to all learner needs.

Furthermore, human rights and social justice must be addressed for all learners. All learners have the right to quality education, and must be treated with dignity and respect. Social and educational opportunities must be provided so that all learners enjoy full participation in their communities, thus promoting social integration.

Every learner must enjoy the right to full access to the common curriculum even though adaptations are made for specific learners. In the past the educational structure prevented this and provided separate curricula and facilities to exceptional learners. It is now the time to ensure that the barriers to learning and development are removed and equal opportunities are provided for all learners. This appears to be a massive task, thus support and assistance are needed to promote these principles. Collaboration with the community and various governmental and non-governmental departments could lend a hand in forming partnerships. Finally, an effective education system must be planned in such a way that all learners have full access to the education system. In these times of an eroded economy, care must be given so that an affordable system of education be planned and implemented that would yield effective results for the learners.

2.4.1.3 Strategies

The National Commission for Special Education and Training identified key areas as essential to achieve the vision within the framework of the principles of the South

African constitution and white papers. It was envisioned that the following areas be targeted with specific strategies to develop one education system for all:

- transforming the system
- developing an integrated system of education
- infusing special needs and support throughout the system
- Developing barrier-free access to the built environment in all centres of learning

The following areas need to be focussed on:

- a holistic approach to institutional development
- developing a flexible curriculum to ensure access
- promotion of the rights and responsibilities of the parents
- promoting the rights and responsibilities of learners and educators
- development programmes for educators and other human resources
- development of holistic and integrated support services
- community-based support
- a preventative and developmental approach to support
- developing funding strategies that ensure redress for historically disadvantaged communities and institutions, sustainability and ultimately, access for all learners.

There is a need for a strategic plan to acquire funds to ensure redress, sustainability and access to educational programmes. The funding must take into consideration the diverse needs of all learners and minimise barriers to learning and development.

Given the context of the South African education system, it is evident that there is a great need for a major paradigm shift among educators and other stakeholders involved with education. Implementation of the new system and the collaboration with both the regular education system and communities must be pursued for this system to be effective. The Report of the National Commission on Special Needs Education and Training (1997) has succeeded in its task to recommend an education system that would accommodate the diverse needs of all learners. It is

now up to the implementers and stakeholders to take these recommendations and implementation plan into consideration when planning their own policy. Specific references are made in both the Report of the National Commission of Special Education and Training (1997) and the White Paper 6: Building an Inclusive Education System (2001) for specific funding for a successful implementation of an inclusive education system. These could be made available at both national and provincial levels. Likewise, the Integrated National Disability Strategy (1997) strongly recommends that government departments work together and exchange services to promote a cost effective service delivery.

2.4.2 Integrated National Disability Strategy: White Paper (1997)

This document clearly addresses specific issues in education that must be addressed. Principles prescribed include:

- access to the widest possible educational and social opportunities;
- education and training in as normal an environment as possible; and
- the provision of resources to realise the learner's highest potential (1997:39).

Clear policy objectives are outlined as follows:

- to facilitate equal access to education – including community initiative – and equity in education provision at all levels;
- to develop a single; unitary education system that will cater for the needs of all learners within an inclusive environment with various placement options;
- to facilitate capacity building for all stakeholders (parents, educators, and planners);
- to facilitate earlier access to education for all learners, but in particular for learners with special educational needs; and
- to facilitate effective and relevant research (1997:38).

In order to achieve these policy objectives, the following recommendations are made:

- That a clear policy that includes all stakeholders, and which is understood and accepted at school level, be developed;
- That the development of curriculum must include flexibility and additions and modifications compatible with the needs of the learners, regardless of the category to which they belong;
- That on-going in-service education and support educator training be ensured;
- That parent empowerment programmes are put in place so that there is full participation from parents in the assessment and decision-making process;
- That there is adequate technology development in education and training;
- That inter-sectoral collaboration mechanisms operate at national, provincial and school level
- That there will be a long-term vision for educators fluent in sign language in all centres of learning; and
- That adequate and efficient support services will be available for all learners (1997:68-70)

These recommendations are relevant for all components in the field of education. This includes early childhood development, general and further education, higher education, and adult basic education.

2.4.3 Tirisano Document – Five-Year Strategic Plan (2000)

The Minister of Education has embarked on the development and implementation of a major strategic plan to develop the South African education system and population into a system that will prepare us to face the new challenges of the twenty-first century. This document provides further direction to speed up service delivery and enhance accountability of the public service within the context of the twenty-first century.

There are nine priorities outlined in the strategic plan of the Tirisano Document, viz.:

- To develop the provincial systems effectively by making co-operative

government work;

- To eradicate illiteracy amongst both adults and young people;
- To develop schools into centres of community life;
- To end conditions of physical degradation in South African schools;
- To actualise active learning through an outcomes-based education;
- To develop further education and training systems so that they can equip both young and adults for the world of work;
- To implement a rational, seamless higher education system that includes the intellectual and professional challenges of the twenty-first century; and
- To develop effective educational programmes for HIV/AIDS through the education system.

The priorities have been categorised into five core programmes: HIV/AIDS, school effectiveness and educator professionalism, literacy, further and higher education and organisational effectiveness of the national and provincial departments. The strategic plan addresses issues, which will impact on the education of learners with special educational needs such as training for educators and literacy. However, a policy and implementation framework and initiatives for learners with special educational needs, gender equity and early childhood development are presently being developed.

2.4.4 Education White Paper 6: Special Needs Education: Building an Inclusive Education System (2001)

The Draft White Paper was based on the principles recommended in the Report of the National Commission for Special Needs Education and Training (1997) as discussed earlier and was released as an official policy document in July 2001.

The vision is to provide learners with disabilities full access to education and the curriculum. This is compatible with all documents mentioned previously. It also aims at:

- Systematically moving away from segregation and the labelling of learners;
- Emphasising support for learners;
- Providing guidelines for setting up initial facilities and accessing additional resources;
- Setting guidelines on how learners with special educational needs would be incorporated in full service or regular schools;
- Giving guidelines for the adaptation of rural schools;
- Introducing strategies and interventions to assist educators in dealing with the needs of a diverse classroom population;
- Providing guidelines for education support services;
- Providing clear guidelines on how current special schools could be used to service learners with special educational needs and serve as resource centres;
- Reviewing education and training policies, legislation, advisory bodies and governance and organisational arrangements;
- Strengthening support services for both learners and educators on all system levels, e.g. at school, district and community levels;
- Expanding provision and access for learners to centres of learning in the general education band, further education and training, higher education and adult education;
- Adopting a flexible curriculum and assessment policy;
- Establishing public awareness and acceptance of inclusive education within the wider social context through dissemination of information, advocacy and mobilisation; and
- Developing a funding strategy to ensure that adequate resources are available for implementation.

2.4.5 Summary

In summary, all legislation and White Papers clearly call for the inclusion of all learners, including those with special educational needs in a unitary education system full support must be made available for learners to promote their learning

and development. However, the documents also realize that not all educators are prepared to provide the supportive system for the learners and therefore recommend that training be made available for educators.

Finally, it is also observed that a flexible curriculum must be implemented which will provide full access for all learners to participate in educational activities to the best of their ability. This in turn will provide all learners equal access to educational experiences and activities.

2.5 THE IMPACT OF INCLUSIVE EDUCATION

Recently, the ongoing research both for and against inclusion has gained much attention. Research reveals three areas of focus in the impact of inclusion on others: that of the impact on learners with special educational needs, learners without special educational needs, and on educators and parents.

2.5.1 Impact of inclusive education on learners with special educational needs

There are mixed feelings in the research on the impact of inclusive education on academic achievement for learners with special educational needs. Researchers such as Lipsky and Gartner (1996) while Sharpe, York and Knight (1994) found no statistical significance in academic and behavioural measure. Other researchers such as Hunt, Farron-Davis, Beckstead, Curtis and Goetz, 1994; and Hunt, Staub, Alwell and Goetz, 1994, found that learners with disabilities in inclusive programmes gained academic and functional skills more readily than in segregated settings. Furthermore, Banerji and Dailey (1995) observed that learners with special educational needs in an inclusive education programmes made academic as well as self-esteem gains and showed increased motivation to learn. Likewise, a study conducted by Clement, Laughlin, Lynch, Merryman and Lamb (1995) indicated that all learners in inclusive classrooms had fewer incomplete assignments, and showed improved self-esteem, grades and on-task behaviour, far more interaction with

peers, and a more positive attitude towards school and learning.

2.5.2 Impact of inclusion on learners without special educational needs

An important factor to be considered is the impact of inclusion on the learners without disabilities. Both the educators and the parents are frequently concerned about the amount of time that will be spent on learners with special educational needs. This is seen as time taken away from the learners without special educational needs. However contrary to this, in a study conducted by Hehir (1995) it is reported that learners without disabilities often benefit from the incidental support available for all learners in the classroom. Studies conducted by researchers such as Peck, Donaldson and Pezzoli, 1990; Salisbury, 1993; Sharpe, York and Knight, 1994 and Staub and Peck, 1995, report the following findings:

- The achievement tests of learners with disabilities were equal to or better than those of learners without disabilities in inclusive programmes.
- Learners without disabilities developed more positive relationships and meaningful friendships with learners with disabilities.
- Learners without disabilities did not adopt inappropriate behaviours from learners with disabilities.
- Self-esteem, social skills and problem-solving skills improved in all learners in the inclusive classroom.
- Learners without disabilities developed a greater sensitivity to the needs of other learners.

There are many other studies available including those for high school learners. In general the results of studies indicate that inclusion is beneficial for both learners with special educational needs and regular learners.

2.5.3 Impact of inclusion on educators

As was the case with the impact of inclusion on learners without disabilities, mixed feelings have been recorded among educators. Many educators expressed their concern about being unprepared to undertake the process. Scruggs and Mastropieri (1996) reported that educators felt that they had not acquired the skills and knowledge to teach an inclusive class. Furthermore those educators felt uncomfortable in dealing with learners who required medical assistance. They viewed the demands to meet the academic and affective needs of the learners as an extra burden. On the other hand, other educators were sceptical and felt insecure because they felt they may not have been supplied with the assistance, instructional material and time and training to implement an inclusive programme successfully (Werts, Wolery, Snyder, Caldwell and Salisbury, 1996). Like the regular educators, special educators also had their concerns. They feared the loss of their jobs, experienced a feeling of incompetence and were concerned that learners may view them as teachers' aides (Salend, 1998) while they worked alongside the educators in the regular classroom. Researchers such as Villa, Thousand and Nevin (1994) reported that both general and special educators felt that administrative support and collaboration would be valuable in promoting positive attitudes towards inclusion.

In South Africa, Eloff, Engelbrecht and Swart (2000) reported that educators who included learners with cognitive disabilities in their classes experienced considerably more stress than educators who included learners with physical disabilities did. They also experienced stress as a result of the responsibility of being held accountable for the educational outcomes of the learners with cognitive disabilities, especially around modifications to the curriculum. It appears that the stress factor was due to the lack of support for the educators and services available for the learners. Educators also confirmed that behaviour difficulties were definitely a barrier to learning. The researchers indicated that there was a great need for the development of effective in-service support systems and programmes for educators who were including learners with disabilities in their classrooms. Marais (2000) reported that 80% of educators' attitudes towards inclusion indicated that the

education of learners with special educational needs was the responsibility of the special educators. It was perceived that general educators lacked the experience and instructional skills and teaching background to teach learners with special educational needs. Furthermore, the educators felt that learners with special educational needs required more support and assistance than they could provide. Marais (2000) and Engelbrecht *et al.* (2001) also suggested that the training of educators in inclusive education was of the utmost importance.

Finally, on a more positive note, other educators who have implemented or worked in inclusive programmes attested that they had made personal gains. They reported that through collaborative teaching and planning efforts, they had gained more insights about their beliefs and teaching practices. Likewise, their teaching experiences had been more enjoyable and stimulating (Giangreco, *et al.*, 1995; Philips, Sapona and Rubic, 1995). In fact they suggested that the impact of inclusion on educators may have been affected by their own perceptions or other compounding factors. However, they believed that with adequate preparation, educators would succeed.

2.5.4 Impact of inclusion on parents

Because inclusion is a relatively new concept, it is not unlikely that parents will have mixed feelings about it. Some parents with learners with no disability may not want their child in an inclusive class/school. They may fear that their child will not be allocated enough time with the educator, or that he/she will be exposed to inappropriate behaviour, or disruptions in the classroom. However, once these concerns are alleviated, parents often become supporters of inclusion. Parents of children in inclusive classes reported that their perceptions of other learners have improved (Logan, Diaz, Piperno, Rankin, MacFarland and Bargamian, 1995). Children benefited from inclusion, particularly in regard to an increase in their social, academic and development skills (Bennet, Deluca and Bruns, 1997). These researchers contribute the benefits to the availability of appropriate role models, peers and friendships their children were exposed to in inclusive classrooms.

All our policy documents suggest active participation of parents in the schooling of learners. If parents participate in the process of inclusion, they will observe the benefits of inclusion for their children.

2.5.5 Summary

Research on inclusive education reveals that it has an impact on three areas viz. learners with special educational needs, regular learners and educators and parents. In view of this, we need to be vigilant of both the negative and positive implications of inclusive education. In doing so, it is imperative that in planning for inclusive education, we need to take in consideration the observations posed by the research and prepare all participants for the successful implementation of inclusive education. An important factor that surfaced in the research clearly indicate that adequate preparation and support of learners, educators and parents plays a major role in the success of inclusive education.

2.6 CHALLENGES REGARDING THE IMPLEMENTATION OF INCLUSIVE EDUCATION IN SOUTH AFRICA

In order for inclusion to gain full recognition, there are several areas that need to be addressed.

2.6.1 Attitudes towards inclusion

Of great concern to educators, parents and learners is that the inclusion of learners with special educational needs may interfere with the education of learners with no disability (Orelove, 1978). On the other hand, teachers fear that they are ill equipped to deal with disabilities (Winzer, 1996) or their instructional time may increase as the need arises. Furthermore, they fear that instruction may suffer because of the lack of academic and social skills of learners with special educational needs, or the disabled may not benefit from their programme due to lack of adequate resources (McMillan and Morrison, 1980).

Research among school professionals revealed mixed attitudes. To some extent, some are supportive of inclusion (Stainback, 1984; Rule, Killoran, Stowitschek, Innocenti and Striefel, 1985 and Aveno and Renzaglia, 1988), however, on the other hand, others are not. Forlin, Hattie and Douglas (1996) and Eloff, Engelbrecht and Swart (2001) recorded that educators found that implementing inclusion is stressful. Generally, these negative attitudes have been attributed as functions of the lack of pre-service and in-service training, available resources for educators, knowledge of the best practices and personal experiences with learners with disabilities (Brinker and Thorpe, 1985; Horne, 1985).

Inclusion demands a considerable commitment, effort, and time from educators (Stainback, Stainback and Forest, 1998). More likely, educators will be more receptive to change if they are more prepared to deal with inclusion and acknowledge the benefits to all their students. Likewise, with adequate training, resources, support and preparation, educators will be more amenable to of inclusion.

Parents and children base their attitudes on personal experiences. Taylor (1982) indicates that parents whose children have not been exposed to inclusive education, voiced strong opposition. However, McDonald (1987) reports that parents whose children attended inclusive schools displayed positive attitudes about the system. Thus, a concerted effort must be made for parents to be well briefed on an inclusive education and training system and its benefits. In a video presentation filmed in schools of the Western Cape Education Department, South Africa, three case studies (learner with Down Syndrome in a regular classroom, and two learners with intellectual impairments in two different pre-school settings) demonstrated that learners with special educational needs can be successfully included. The parents of all three children were very satisfied with the progress their children had made since their inclusion in regular classroom facilities.

Changing attitudes come with experience and knowledge. The attitudes of educators are modifiable. Horne (1985) and Stainback and Stainback (1988) report that positive attitudes amongst educators occurred when their experiences were

positive; likewise when support was provided (Mallory and Herrick, 1986; Taylor, 1982). Often special educators assume the role of providing support. As stated before, educators find it stressful when learners with specific disabilities are included in their classrooms. However, the study conducted by Eloff, Engelbrecht and Swart (2000) indicates that preparing educators with supportive methods and in-service training may assist educators with the challenge of inclusion and promote positive attitudes. Marais (2000) also indicates that if educators are well trained through in-service programmes, and resources are available, both regular learners and learners with special educational needs would benefit from the experience.

Positive learner attitudes have also been observed when knowledge (Gotlieb, 1980) or experience (Voeltz, 1980) and other initiatives were available. The initiatives of Johnson and Johnson (1980) indicate that when in-service programmes were provided and co-operative learning and small group structures were implemented in the classroom, changes in attitudes among all learners evolved. For learners, breaking the barriers to change is possible through participation, exposure to knowledge, adequate support and the utilisation of effective instructional strategies to meet their needs. This is evident in studies conducted by Klingner and Vaughan (1999). 20 studies, from kindergarten to grade twelve, both learners with and without disabilities also recognised that everyone is not the same and does not learn at the same speed. Therefore, material must be presented and taught in a variety of teaching methods.

2.6.2 Structural changes

Implementing structural and procedural changes demands strategic planning and organisation. Leaders must assess the school and community resources that could be utilised in an inclusive education system. New roles must be assumed, especially by the special education educators at both regular and special schools and regular classroom educators whose professional resources and expertise could be valuable in the process. The changes are instrumental in providing the best educational practices in the context of a free and appropriate education for all learners. The

emphasis should be on how best to utilise skills, resources and human resources to provide an effective education system.

2.6.3 Changing role of educators

All educators have a role to play in the implementation and effective changes of inclusion. However, the roles of all educators and administrators from the traditional role to a collaborative team approach, needs to be redefined. Barry (1995) indicates that in her first year of teaching in an urban middle school in Madison, she encountered her first experience in easing into an inclusive classroom. In her observation, she reports that her experience convinced her that the value of collaboration between educators is essential for the special educator classroom educator to work side by side along special educator in the classroom. This indicates that change is possible.

According to a study conducted by Wood (1998), it is reported that educators adapt to changes in their role over time, with patience, perseverance, and support. It is also suggested that professional development and training issues must be conducted prior to restructuring. The study also indicates that it is imperative that pre- and in-service training be structured for educators to share language and philosophies about inclusion to meet the challenge of their changing role.

In terms of roles, the principal probably has the major role in the inclusive process. Research has repeatedly found that no programme will be successful if the principal is not actively and positively involved in the process. It should not be considered as a classroom project but as an inclusive philosophy of the school; thus it must permeate throughout the school and become the foundation for all other programmes that occur. The role of the principal can include the following:

- setting up a school community and playing an active role in their deliberations;
- assisting personnel in the transition towards an inclusive school;

- providing constant support to all educators and personnel;
- addressing concerns from parents and the school community; and
- managing the school-wide logistics of an inclusive school.

(Swart and Pettipher, 2001; Van Dyke, Stallings and Colley, 1995)

Special educators also play a crucial role in the support process in inclusion, both for the learners and the educators in the regular classroom. Indeed, the role of the special educator will change from one of being remedial to that of being supportive.

The following are areas in which a special educator would be instrumental:

- Acting as a case manager for learners with specific learning needs;
- Facilitating team meetings and planning sessions;
- Determining curricular adaptations;
- Involving themselves in the planning and support needs of all learners;
- Providing supplemental instruction as determined by the team;
- Assisting in developing community and life skills programmes with educators for groups of learners;
- Assisting educators in dealing with challenging behavioural learners;
- Preparing learners for inclusive classroom experiences; and
- Assisting all learners for acceptance of all in an inclusive classroom.

(Van Dyk *et al.*, 1995)

The classroom educator is the most important person who will play a vital role in developing an inclusive learning community as he/she is in a direct relationship with the learners on a daily basis. Diversity in regular classrooms mandates a change in traditional roles and classroom educators need to:

- set realistic outcomes so that all learners may be successful;
- implement strategies that will foster a sense of community and will value the challenges and contributions of all its members;
- apply effective and realistic classroom disciplinary strategies;
- promote collaboration between learners through co-operative learning structures; and
- ensure that all learners take ownership and that a sense of belonging is

prevalent among all learners.

(Kagan, 1994; Swart and Pettipher, 2001)

It is clear that educators should have the ability to analyse learning characteristics, strengths and needs of learners as individuals and to plan instruction based on their needs. Inclusion cannot take place unless there is a paradigm shift and roles of all participants are clearly redefined. Furthermore, it is evident that full preparation and training programmes are imperative.

2.6.4 Changes in the curriculum and instruction

In order for all learners to benefit from the classroom experiences, issues pertaining to the curriculum must be addressed. It is important that:

- The parents and the learners are actively involved in their curriculum. If parents are informed about the curriculum, greater support is gained from them.
- Throughout the implementation of the curriculum, learners are provided with support from their peers.
- An integrated curriculum is implemented for all learners throughout the learning process (Sheppo, Hartsford, Ruff Jones and Haringa, 1995).
- Educators work as a collaborative team. Key issues that foster collaboration are:
 - ▶ Open communication
 - ▶ Flexibility;
 - ▶ Shared ownership;
 - ▶ Recognition of diverse needs of both the educators and the learners;
 - ▶ Willingness in developing a needs-based instruction;
 - ▶ A need for dependability among the educators;
 - ▶ Being prepared for co-operative grading; and
 - ▶ Having a sense of humour in their working relationship

(Mundschenk and Foley, 1997)

It is evident that in considering the implementation of curricula, an effective collaborative approach must prevail among the role players (Fuchs and Fuchs, 1994). This clearly calls for more innovative instructional practices where learners and other stakeholders actively participate in the curriculum and the learning process (Department of Education, 1997).

2.6.5 Summary

From the above discussion, it is clear that in implementing inclusive education in South Africa, we are faced with major challenges. It is evident that implementation of inclusive education will not be easy since education is generally a conservative enterprise. It should be viewed as a system that demands a considerable amount of commitment, effort and careful planning to address the South African challenges and effect change.

2.7 EFFECTIVE STRATEGIES FOR INCLUSION

There are many resources and strategies being promoted for learners with special educational needs today. These resources vary greatly from books to ready-made activities and strategies that may be of benefit to all learners. The following are a few effective strategies that would assist educators in promoting full access for all learners to a unitary curriculum. Although this is not a complete range of strategies, the following strategies are specifically linked to the curriculum, social interaction and access to equal educational opportunities.

2.7.1 Learner groups

A variety of learners grouping options are available to provide an inclusive education environment. Researchers such as Harp (1989) and Johnson and Johnson (1980)

are well familiar with inclusive settings. They suggest flexible and co-operative groupings as alternative options to the traditional ability groupings. The groups are constructed based on the interest, learning style and friendship of the individuals rather than on their ability. Specific instructional objectives accompany these groups.

Co-operative learning group structures have also been well researched and promoted because of their positive social and academic outcomes (Kagan, *et al.*, 1985; Johnson and Johnson, 1985; Slavin, 1987a). Learners work in small groups that vary in ability. Each session has both an academic and a social goal, which are assessed at each session. Reviewed studies concluded that co-operative learning groups could result in higher academic achievement and pro social/racial relationships (to be discussed in Chapter 3).

2.7.2 Peer tutoring

Peer tutoring appears to be an effective strategy. Researchers such as Brown *et al.* (1983); Good and Brophy (1984); Gurry (1984); and Stainback and Stainback (1989) believe that learners learn best from their peers. Peer tutoring is instrumental in teaching specific skills to peers, for re-enforcement or data collection. A broad range of academic and leisure tasks could be accomplished across the board or it could be applied in a variety of settings (Gayland-Ross, 1989).

2.7.3 Curriculum instruction

Perhaps the most important feature in inclusion is the impact of curriculum and instruction. The participation of all students in activities based on their own ability level is the ultimate goal in an overlapping curriculum. The availability of a variety of material on a theme at different levels has proved to be successful (Van Dyke, Stallings and Colley, 1996). The same curriculum goals are expected of all learners,

but individual differences are taken into account with the result that a flexible view of the curriculum is created.

Parent involvement in their child's education is vital. Keeping the parent informed of their child's progress promotes support. Including parents as volunteers in the classroom or in community projects promotes parent partnerships in the school community, which could lead to success. Collaborative partnerships between educators including collaborative problem-solving, group problem solving, peer coaching, co-teaching and co-operative learning can enhance curricular and instructional modification (Swart and Perripher, 2001).

2.7.4 Innovative teaching methods

According to Mahaye (2000), teaching methods could be described as specific techniques that educators employ to assist learners to gain the knowledge they need to meet their specific outcomes. A variety of teaching methods could be used to effect meaningful learning. In an outcomes-based curriculum the emphasis is on participation in the teaching and learning process. By participation, the learner attributes real meaning to his/her own learning. For learners to attain their outcomes, the educator needs to develop and use a well-planned procedure to facilitate effective learning in an environment that is conducive to learning. The educator has to be well motivated, must be able to motivate the learners, be flexible, create exciting opportunities for the learners and utilise a variety of effective teaching methods, especially in an inclusive classroom with diverse needs of learners. The selected method of presenting lessons must create optimal opportunities for all learners to participate. However, educators do vary in their styles of teaching. There are two types of teaching styles: direct and indirect. In the direct teaching style the educator tells and shows learners directly. Loubser (in Fraser *et al.*, 1993) refers to this style as gaining insight by observing. In the indirect style of teaching educators encourage learners to think, explore and find out things for themselves. The first learning style could be referred to as a teacher-centred approach to learning whereas the latter style of teaching could be referred to as a

learner-centred approach to teaching.

In the Stakeholder Response Document (1997) it is suggested that progressive methods of teaching and learning must be employed. Active learner-centred approaches with opportunities for learners to explore ideas and approaches to learning that would provide ample opportunities to practise their skills must be employed. A variety of backgrounds, learning styles and the needs of the learners must be linked to their prior knowledge so that learning can be meaningful to the learners.

Furthermore, teaching methods should promote logical thinking, analysis of issues and be holistic in nature. This means that learning must be directed to problem-solving rather than rote learning or memorising knowledge. Educators must be adequately prepared to facilitate this type of learning situation in an outcomes-based education curriculum.

The search for effective teaching methods to service a diverse population in an inclusive classroom has not been an easy one. Yet, we have to accommodate the needs of all learners in our classrooms. Moving from traditional, rigid methods of teaching needs rethinking and in-service training in order for inclusion to be effective. Innovative teaching methods require restructuring of the classroom, and classroom educators must be ready for these changes.

A second way of accommodating diverse learners in the general education classroom is by utilising collaborative teaching methods. This is only possible when there is a special educator at a school. Smith, Polloway, Patton and Dowdy (1997) recommend seven collaborative teaching methods. These are listed as co-teaching methods. Co-teaching takes place when two or more educators share the instruction for a single group of learners (Bauwens, Hourcade and Friend, 1989). Co-teaching often occurs for a set period of time on a daily basis. The special educator may take this group during this time or vice versa.

Another teaching method is one where one educator teaches and the other

provides support to the learners in need of assistance. The key to using this approach is to use it as only one alternative to other methods. Station teaching occurs when one educator teaches and the other provides support at various learning area stations. One educator teaches the lesson to a station while the other teaches at the other station. while the other stations are working independently. The process is repeated until all stations have received instruction in the lesson. Parallel teaching takes place when both educators teach the same lesson to half of the class at the same time. This needs careful co-ordination of the strategy that the educators would use. Another teaching method could be alternative teaching. The class is divided into one large and one small group. The small group could do enrichment while the larger group is instructed. Team teaching is considered when both educators take the lead and are equally engaged in the instruction. By utilising these team teaching methods, the pressure or workload is shared.

As stated before, in-service training is in the process of being implemented (Tiriano Document, 2000; White Paper for Special Education, 2000). It must include innovative instructional methods that would make learning meaningful to the learners. Already suggestions have been made at various institutions around co-operative learning as one viable teaching method (refer to par. 2.7.1).

One of the most innovative teaching methods is that of co-operative learning which will be discussed in the following chapter.

2.7.5 Evaluation

Finally, feedback and review are imperative elements of inclusion. Since inclusion demands a system change, all stakeholders must participate in the review to build the culture of inclusion.

Kregel (1985) suggests three criteria for evaluation:

- The extent to which the learner with special educational needs has gained

- independent in his/her performance at home, school and community
- The extent to which the learner participated in all facets of community life, and
 - The extent to which inclusion has provided the learner's input into his/her daily activities.

The feedback and review will promote and support change in the culture of schools and community by the development of collaborative problem-solving skills and can enhance the implementation of inclusive education.

2.8 CONCLUSION

In South Africa there is a great amount of work to be done, such as teacher training, replenishing resources and acquiring human resources; all of which demands extra funding. In both the National Commission of Special Education's Report (1997) and the Draft White Paper: Building an Inclusive Education System (2000) the issue of funding is clearly addressed. The National Department of Education is making great attempts to secure funding from a variety of sources to support the provincial governments in their attempts to address the needs of learners with special educational needs.

With the inception of a government of national unity, a commitment to an inclusive education system was adopted. Despite the government's commitment, the issues pertaining to inclusion are complex. The present system continues to function under the old medical model where learners have to fit into programmes. At the National level, strides are being made to address Specialised Education. The formalisation of the Integrated National Disability Strategy (1997) and the National Commission of Special Educational Needs Report (1997) signified the movement towards policy development and guidelines. Subsequent to these recommendations, the National Department of Education developed a Draft White Paper: Building an Inclusive Education System (2000) while the Minister of Education initiated a five-year plan to

address urgent issues in education in the Tirisano Document (2000).

Given South Africa's rich socio-political history as discussed in chapter one (see par. 1.3.1), it is evident that a large proportion of its population will require specialised education services. Researchers such as Du Toit (1996) suggest progressive inclusion, although the ultimate goal is full inclusion. But, as an initial step in addressing the diverse needs of our learners, progressive inclusion appears to be beneficial. The concept would be a steady progression and developmental until such time all structures for full inclusion are in place. The Integrated National Disability Strategy and the National Commission of Special Education and Training has put this process in place in their final recommendations. Their recommendations are based on the principles of the Department of Education (1997:4) which aims to:

- Address the fragmented approach in education;
- Involve all participants in a decision-making process: thus employing a democratic process; and
- Respond to the diverse needs of the South African learner population.

Given the unique and diverse South African population, these recommendations clearly demonstrate an effort to merge two systems that would respond to the diverse needs of all learners. In this integrated approach it is hoped that the education system would make allowance for a range of options in the education provision and support services. Thus, the centres of learning must be structured in such a way that all learners are provided with opportunities for integration and be included in all aspects, regardless of the learning context (NCSNET Report, 1998). As stated in chapter one (see par. 1.2), the vision for the education and training system for South Africa promotes education for all and advances the development of an inclusive and supportive education system. This means that all centres of learning must promote the active participation of learners in the process of learning and development with the aid of an adequate support system. By doing this, they will be extending the potential of the learners so that they may become contributing members of society.

The basic principles and vision of inclusion are embedded in the Constitution of South Africa. They include the rights of learners to equality, protection from discrimination, respect for human diversity, the right to equal benefit and protection from the law, and redress of past inequalities faced by previous disadvantaged groups in order to create equal opportunities for all people and an education system that is accessible and responsive to all barriers. All learners should be treated with respect and dignity, participate in the community and support and promote social integration. Furthermore, everyone must have equal access to an inclusive education system and full access to the curriculum. Education must be meaningful and relevant to the lives of the learners, which means that they must be given an education that will prepare them for future involvement in the community (NCSNET, 1998).

In order to achieve these goals of an inclusive system in South Africa, the education system and its curriculum need to be restructured. Already the National Department of Education has implemented an outcomes-based education curriculum. This curriculum endeavours to facilitate the transformation of the education system to make it accessible for all learners; thus promoting an inclusive education system. Furthermore, outcomes-based education strives to provide opportunities within the system that will provide learners experiences that will assist them in achieving their outcomes (Spady, 1994). This system clearly allows for learners to attain success in schools that create an environment that is conducive to successful learning. Taking into consideration the learners' needs, it is imperative that curriculum developers strive to set outcomes that are attainable for learners. This could be accomplished when expanded opportunities and high expectations are created for learners to achieve at their own pace and in their own learning style. In order to achieve an effective inclusive system whereby an outcomes-based curriculum is implemented, innovative teaching methods should be utilised to facilitate successful learning. One such innovative teaching method that is highly recommended, is co-operative learning. This will be discussed in the next chapter.

CHAPTER 3

CO-OPERATIVE LEARNING

3.1 INTRODUCTION

Against the background of the literature review in chapter two, and the specific need for innovative teaching methods, this chapter focuses on co-operative learning as an innovative teaching strategy for teaching learners with special educational needs in inclusive classrooms.

Not so long ago it was understood that a quiet class is a class seriously preoccupied with learning. Principals walked down the hallways expecting not to hear a sound. Today, however, the utilization of alternative programmes promotes active discussion, and a humming of voices is not unusual. One of these programmes, called co-operative learning, encourages active participation from all learners and fosters discussion, debates, negotiations, and disagreements but ultimately provides opportunities for learners to acquire valuable pro-social skills and academic stimulation.

Co-operative learning comes highly recommended as a solution for a variety of educational difficulties (Johnson, Johnson and Smith, 1991; Kagan, 1994). It has been quoted as instrumental in promoting thinking skills, higher level learning, and positive race relations, and in assisting learners in acquiring valuable skills that would prepare them for the work environment (Slavin, 1991; Johnson, Johnson and Smith, 1991; Kagan, 1994). Are these claims justified? Why is co-operative learning so important now and what are the components of co-operative learning?

In this chapter the researcher will attempt to answer these questions through an investigation of the literature on co-operative learning with specific focus on its

background and history, the need for co-operative learning, the need for co-operative learning in South Africa, benefits of co-operative learning, underlying principles of co-operative learning, research and the benefits of co-operative learning, co-operative learning methods and the role of the educator.

3.2 BACKGROUND AND HISTORY

Co-operative learning is an umbrella term used to delineate a number of specific groups activities in which learners work together co-operatively in small groups to attain goals while maintaining individual accountability. This teaching approach has its origins in the first century when an educator, Quintillion, postulated that learners learn best from their peers (Johnson and Johnson, 1991). His ideas were further supported by the educator, Johan Amos Comenius (1592-1679) (Gruber, 1961). However, it was not till the eighteenth century that co-operative learning groups were fully implemented in England by Joseph Lancaster and Andrew Bell. These educators used co-operative learning groups extensively in England. As a result of this, educators in the United States showed a great interest when a Lancastrian school was established in New York in 1806. The common School Movement in the United States clearly promoted co-operative learning structures as a beneficial approach to learning (Johnson, Johnson and Smith, 1991). During this period, Triplett, in the United States of America, and Mayer, in Germany, conducted studies on factors associated with competitive learning. At various periods, there were avid advocates who firmly believed that the use of co-operative learning was a means of attaining educational goals of the time. One successful advocate of this approach in the United States during the nineteenth century was Colonel Francis Parker who adopted this approach with much enthusiasm, imagination and practice. He was instrumental in structuring his teaching with co-operative learning principles (Ellis and Whalen, 1990). In the last three decades of the nineteenth century, Colonel Parker dedicated his efforts to freedom, democracy and individuality in the public school system. It was his democratic and co-operative ideals in co-operative learning that earned him much respect from the public. His teaching approaches of promoting co-operation among learners prevailed in the United States. Educators flocked to the United States to

observe the use of co-operative learning. It is said that Colonel Parker attracted an average of 30 000 visitors annually to Massachusetts where he was superintendent of Public Schools (Johnson, Johnson and Smith, 1991). By the turn of the century, John Dewey displayed an interest in the co-operative learning approaches (1916) but it was not until the 1930's that interpersonal competition was initiated and emphasized in public schools and colleges. May and Doob reviewed the research of Triplett and Mayer. In the 1940's Morton Deutsch promoted a theory on co-operative and competitive efforts. Johnson and Johnson built on the work of these researchers in the 1960's. Their work resulted in the establishment of the Co-operative Learning Center at the University of Minnesota in the early 1970's. Simultaneously, David de Vries and Keith Edwards initiated work on co-operative learning at John Hopkins University's Center for Social Organization of School (Johnson, Johnson and Smith, 1991). Many researchers and practitioner groups throughout the United States, Canada and other countries subsequently participated enthusiastically in the study and the implementation of co-operative learning structures in its lessons, curricula, strategies and procedures (Johnson, Johnson and Smith, 1991).

The research on co-operative learning intensified in the 1980's, when a great concern for the education of learners of special educational needs and a major transformation in the economy, societal practices and demographics emerged in the United States of America. During this period, more comprehensive and detailed structures on co-operative learning were investigated to address the needs of all learners in the regular classrooms. Since the learners were a representation of their future workforce, it was necessary to address the demands in interpersonal skills, as it was fast becoming a priority for positive participation in economic life. In other words, there was a need to reassess the social structure of educational institutions so that they could provide experiences that were socially and educationally compatible with the reality of the workplace. Furthermore, advocacy groups were avidly promoting the educational rights of disabled learners. The era of social and educational justice had dawned.

In South Africa, it was not until the dawning of the democratic era when economic, social and demographic practices were addressed to meet international standards. At the same time a unitary curriculum was established to replace the past inequalities

and social disparities in education. South Africa, thus, not only had to deal with socio-economic issues, redress in socio-political issues but also with merging several education departments into one unitary education system, thus demanding a unitary curriculum. The outcomes-based curriculum was one way of addressing the educational inequalities while complying with international standards. In implementing the outcomes-based curriculum, educational planners selected co-operative learning as one viable teaching method. This issue will be addressed later in this chapter.

3.3 THE NEED FOR CO-OPERATIVE LEARNING

The emergence of a new order in social and economic practices in the 1980's clearly indicated that educators had to examine the social, economic and demographic trends that were rapidly growing. The provision of all learners with a range of skills necessary for their future development became a priority (Kagan, 1994). The education system was compelled to modify their traditional role to comply with the needs of the fast approaching twenty-first century. Kagan (1994) suggests that the demands of the twenty-first century focused on an information-based, high technology and interdependent economy. Thus, not only did educators have to provide learners with basic skills and information, but in addition they had to extend their curricula to accommodate higher level thinking skills, as well as communication and social skills.

With the rapid change in the economy, educators identified the information sector as the fastest growing area. The area of information demanded analytic and communication skills while high technology demanded interactive skills. The interdependency of teamwork for effective problem-solving was fast becoming the norm in the corporate world. Thus, it became evident that additional skills had to be acquired in order for the future generation to be successful in the workforce.

Furthermore, education institutions also experienced large shifts in the population, which in return presented them with a host of new challenges such as racial, social and linguistic diversity, which placed an extra burden on educators.

The period of transformation compelled educators to reconsider their traditional roles and instructional methods. The option of using co-operative learning structures in the classroom gained considerable interest. It was one approach that would provide learners with opportunities to expand their range of experiences to include interaction. Communication, social skills and higher level thinking could be gained through team interaction. Thus, the promotion of a team approach became a model of how society can cope with economic and demographic change factors.

Kagan (1994) identified three areas as forces that compelled educators to reassess their approach to teaching:

- Changes in social practices
- Changes in economic practices and
- Changes in demographics.

3.3.1 Changes in social practices

The 1980's marked the beginning of a rapid transformation of social practices. This was observed in education institutions where the loss of pro-social values was clearly visible. Kagan (1994) believes that this was a direct result of a number of converging economic and social factors.

The major influence on pro-social values was the changes in the family structure. The economic changes forced families to become mobile. In view of this, children were uprooted from their neighbourhoods in which they had established stable relationships and were confronted with insecurity and a lack of community support, all of which are necessary elements for positive social development. The situation was further aggravated when some parents found themselves to be two-income families, which placed limitations on the quality of time spent together as a family. The launching of high technological equipment compounded this. Television and video games now compensated for the socialization void where virtually no human interaction was required. To complicate matters further, the content of television programmes

promoted poor models of social values and convincing commercials were unrealistic to the point that, they could sometimes be considered to be as harmful for the mental health of learners (Kagan, 1994).

The loss of social interaction, communication skills and attachments can be directly related to the changing social practices (Kagan, 1994). Thus the need for socializing programmes in schools arose. Research studies related to job loss in youths revealed that the common cause was the lack of social skills (Slabbert, 1996; Slavin, 1990; Kagan, 1994; Madden and Slavin, 1983a).

3.3.2 Changes in economic practices

The North American experience enlightened the population about the rapid growth in the information segment of economics (Kagan 1994). Their transformation moved towards a more people oriented economy. Kagan (1994) alludes to an article by John Naisbitt in *Megatrends* (1988) in which three main areas in the economy are identified that have undergone dire changes, viz.: the move from agronomy to industry, industry to information-management and interdependence to manufacturing.

3.3.2.1 *The move from agronomy to industry*

The traditional farming communities were rapidly diminishing in the 1980's. The era of high technology replaced the farming community, thus farmers and their families were forced to relocate. Inevitably, the city became a more attractive site for employment, these communities now entered the world of industry. Kagan (1994) refers to this as the "post-industrial" age. Obviously these farmers were unprepared for the industrial scene, thus new skills had to be acquired.

3.3.2.2 *Moving to an information-based management industry*

Kagan (1994) states that a MIT reporter indicated that only 12% of the labour force were engaged in manufacturing. It appeared that society had adopted a more management, service - information style approach in the labour force. Services such as the health administration signified a rapid growth. Less manufacturing was conducted and more skills had to be acquired.

3.3.2.3 *Interdependence on manufacturing*

As a result of the shift in the labour force and economic base, a co-operative model evolved in industry. Countries became more dependent on each other, thus supportive and co-operative ways were developed to conduct business, especially in the manufacturing sector. Kagan (1994) cites a prime example: hand-held calculators from the United States were assembled in Singapore, Indonesia or Nigeria, placed in a steel housing from India and stamped with the label " Made in Japan". On the homefront, Kagan (1994) states that General Motors in California utilized labour-labour teams and labour management teams co-operatively in the workplace.

Economic transformation experiences forced society to identify the forces behind the change. It was evident that preparation of future workers was fast becoming a reality and the inclusion of workable skills such as flexibility, communication, co-operation and interaction skills had to be acquired.

3.3.3 Demographic changes

Population shifts added to the economic and social changes. The major area society was confronted with included urbanization, racial diversity and a new majority, achievement crisis, race relations and language barriers.

3.3.3.1 Urbanization

With the diminishing of farms, urban migration increased. The age of technology had eliminated jobs and therefore a substantial rural population invaded the cities. Moving from a rural environment to an urban environment is the easier task, but adapting to the new environment could be a devastating experience. City living demands living in close proximity to other fellow human beings. Kagan (1994) states that sociologists have cautioned society of the consequences of living and working in close proximity with others where there is no emotional or economic attachment. The result of such situations often fosters competitive and mutually exploitive conditions. Thus, children grow up with little appreciation for pro-social behaviours such as respect, caring, sharing, helping and co-operating. The task of living together in an economy that has global implications, will demand new ideas on interdependence (Kagan, 1994; Johnson and Johnson, 1991; Bennett, Rolheiser-Bennett and Stevahn, 1991).

3.3.3.2 Racial diversity

The movement from rural to urban areas attracted many different racial groups. In California in the 1980's, Hispanic families moved from farmlands to the city where a new majority evolved. This in turn, presented further problems in areas such as language, race and cultural diversity. Kagan (1994) worked in close proximity with schools to assist them in dealing with the difficulties. It is here that he worked extensively with co-operative learning structures, which yielded satisfactory results.

3.3.3.3 The achievement crisis

In North America it had been identified that non-white learners were half a grade behind white learners in Mathematics and a full grade behind in Reading. It had also been observed that when these learners reached junior high school (aged 13 - 14), the gap almost doubled (Kagan, 1994). The same author reports that by the age of

17, three times the Hispanic students had dropped out of school as opposed to the white learners. The poor record of retaining and educating non-white learners was not established, but achievement became a big concern for the community. Kagan (1994) hypothesizes that the crisis in educating Hispanic learners could be attributed to the use of traditional, rigid teaching methods that were not compatible to the new social order.

3.3.3.4 *Race relations*

Changing demographics produced a more racially diverse urban community in the inner city schools. The integration of such a diverse population inevitably created difficulties when learners were not prepared for dramatic changes. In view of this, Kagan (1994), Kagan and Oikel (1981) and Kagan and Madsen (1971) conducted several studies using co-operative learning structures. The results yielded favourable interaction among mixed groups, enhanced social skills and the establishment of positive relationships. The benefits of co-operative learning in promoting positive race relations thus seem favourable.

3.3.3.5 *Language barriers*

The influx of immigrants brought a new culture and language. This created more difficulties as a new majority now prevailed. It was evident that with a new majority, educators now had to accommodate language diversity (Kagan, 1994).

3.3.4 Summary

The rapid transformation in the economy, social practices, demographics and the concern for learners with special educational needs in the United States of America compelled educators to seek alternative means to address the increased diversity in

the schools and to provide all learners with relevant and meaningful educational experiences. Schools were dealing with shifts in their school population, such as racial, social, cultural, linguistic, and economic diversity and were faced with a host of new challenges. Furthermore, the shift in economics and social practices were added factors that created even greater demands for the development of new skills.

Transformation in the first world countries was fast approaching a new era where radical changes necessitated the reexamination of their education system. In education, a point had now been reached where all learners had to acquire skills to participate in the world of work and develop into contributing members of society.

3.4 THE NEED FOR CO-OPERATIVE LEARNING IN SOUTH AFRICA

There is no doubt that South Africa is confronted with a great challenge in the field of education. The educational experiences of the pre-democracy era have left South Africa with a majority of learners that are unprepared for future endeavours. The situation was further aggravated by the lack of resources and educational facilities, and unskilled educators with inadequate teaching approaches. Bearing this in mind, new approaches to education as well as the upgrading of educators is vital in order to comply with the changes in education.

As discussed in the previous chapter, South Africa implemented a new curriculum in 1997. The New Ministry of Education has embarked on a curriculum that is in the interest of the new South African context. The seven broad critical outcomes of the South African curriculum focus on areas that would prepare South African learners for life in the global society. The South African education system is geared towards preparing learners with a flexible curriculum for life and work. Entering the international market with the onset of democracy in South Africa, presented many challenges in terms of work processes and communication. Specific skills in the field of high technology essential in order to access information from sophisticated systems. The progress in communication has created what is called a "global village" (Department of Education, 1998). This rapid change demands active

participation for learners to keep on par with international trends. Furthermore, the development of learners to acquire these skills makes the traditional textbook approaches and contents outdated.

South Africa has devised a system that would attend to the needs and skills of the vast majority of disadvantaged learners and especially those with special educational needs. The newly developed Draft White Paper: Consultative Paper #5: Building an Inclusive Education System (Department of Education, 2000) for learners with special educational needs, promotes the inclusion of learners with special educational needs in a unitary education system, and access to a unitary curriculum. With these recommendations from this influential document, changes in classroom organisation and teaching methods must be addressed if all learners are to be provided with a quality education.

With the advent of a compulsory formal education, it is evident that a vast majority of marginalised/disadvantaged learners create implications for the general education curriculum. Since the vast majority of disadvantaged learners are of a variety of ethnic and language backgrounds, the plight of educators intensifies. It is evident that the process of learning must be modified to meet the needs of all learners so that they can acquire skills necessary for participation in building a unified nation.

Compatible with the critical outcomes of the outcomes-based curriculum, as well as the rights discourse for learners with special educational needs, teaching methods must be carefully selected to enhance the social and academic skills of all learners so that they can be prepared to fully participate in a democratic society where the economic and social orders demand new skills. A more participative and interactive approach is vital to promote pro-social and workforce skills.

Against this background we can see that South Africa has major socio-political and socio-economic changes that the authorities are attempting to transform through education. In view of all these fundamental changes in South Africa we need to examine, in more depth, other changes which have occurred in the country. In

examining these changes we can draw parallels with the experiences of the 1980's in North America in terms of demographic, social and economic changes. As their changes occurred, new teaching methods had to be employed to prepare learners for a more fruitful future in a democratic society.

3.4.1 Demographic changes

For a variety of reasons, including those of the global 80's, an increase in the mobility of society has occurred in South Africa. The shift in population materialized so rapidly that it manifested itself in urban areas, which in return created a diverse racial population and a change in the visible minority.

3.4.2 Urbanisation

The rapid growth in industrialisation and the closing down of farms has contributed largely to an increase in the urban population. Urbanisation indirectly gives rise to a disruption in family life (Swartz-Kruger and Donald, 1994). This is further compounded by the lack of adequate housing which in return leaves families no other choice but to live in compact, overcrowded and squalid conditions (Kagan, 1994). In South Africa it has become so bad that children have taken to living on the streets.

Furthermore, Kagan (1994) suggests that living in close proximity with others, where there is no emotional, social and economic interdependence (as in rural areas), could have grave consequences. The lack of employment further aggravates the situation and people resort to dire measures to survive. Kagan (1994) clearly indicates that sociologists caution society that urbanisation fosters a spirit of competitiveness, mutual exploitation and self-boosting, all of which are contrary to communal living.

In essence, urbanisation breeds socialization practices that are less co-operative and distance people from pro-social values and behaviours. At a historic period in the South African society, we need to promote a situation of interdependence to allow us to survive in a world where economic decisions have international recognition.

3.4.3 Racial/cultural diversity and social integration

With the birth of a new democratic South Africa in 1994, it was evident that, integration of racial groups in all areas was imminent. The process of integration posed a profound challenge, as the curriculum and social practices had to be redefined and addressed. New trends and approaches were engaged to address the needs of all learners, both in educational and social practices. As discussed in the previous chapter, a new outcomes-based curriculum was implemented in education. This curriculum is directly focused on a set of outcomes that would direct educators to the attitudes, values and abilities that had to be developed regardless of a learner's race, culture or orientation (Department of Education, 1998). In view of this, seven critical and 66 specific outcomes were designed. The critical outcomes focused on the attitudes and values of ideal citizens of South Africa. The specific outcomes were related to specific learning areas.

A major impact on social practices was caused by the converging political and social factors such as the loss of social interaction and communication skills among racial groups. These deficiencies could be directly related to the changing conditions during the years just prior to the implementation of the democratic era. The need to create opportunities for socialising experiences is a hidden curriculum within the outcomes-based education curriculum, thus promoting integration for the educational and social development of the learners.

3.4.4 Achievement

According to Adams (1996), the levels of dropouts and pass rates are indicators of underachievement. If this is true, then figures concerning pass rates in matriculation, published by Gilmour and Soudien (1994), indicate that black and coloured learners in matriculation grossly underachieved, as compared to fellow white and indian peers. The gross underachievement can be attributed to many factors. However, Adams (1996) suggests that the Black low pass rates could be directly attributed to the use of rigid traditional approaches that create difficulties in the classroom. Kagan (1994) refers to this as a structural bias hypothesis. Traditional classroom structures depend heavily on competitive tasks and reward structures, which provide a bias in favour of achievement and values.

Horowitz and O'Brien (1985, 1994; Adams, 1996; Slabbert, 1996) provide a list of characteristics of underachieving black learners adversely affected by cultural diversity, socio-economic deprivation and geographical isolation:

- Inability to attend to task without supervision
- Inability to externalize behavioural clues
- Inability to trust or consider the beauty of life
- Limited skills for effective communication
- Opinions disallowed in school situation
- Lack of directed development of ability
- No opportunity to exercise behaviour in community without censorship
- Lack of training and development.

In observing these characteristics of underachieving learners, we must realise that these negative effects are not innate but the result of environmental and political factors that had presented us with a legacy of a large underachieving population.

3.4.5 Race relations

Our changing demographics and political structure signify an increase in racial diversity in schools. This indicates that educators will now face an even greater task. The integration of races in all schools in South Africa demands a well-planned approach. As with the achievement problem, problems regarding race relations increase if we do not immediately address the social integration of all learners in the education system. Specifically, we need to focus on goals for both academic and social programmes in the high school and beyond. It is at this stage that learners begin to segregate themselves along racial lines (Kagan, 1994). This does not mean that we must exclude the younger learners. In fact, we must endeavour to prepare our learners to work harmoniously in a racially integrated academic and democratic educational environment so that they can develop into sound, healthy human beings. In South Africa, all will benefit as we strive to achieve a common goal of working together for a unified country.

3.4.6 Socio-political changes

The socio-political experiences of the 70's and 80's have affected the lives of many – socially, academically and in terms of behaviour. The unequal distribution of economic and political resources created a system, in which the majority of learners were deprived of an adequate education and social experiences. The impact of this inadequacy and discriminatory system meant that the majority of our learners were not equipped with cognitive or linguistic skills, or value orientations and positive self-images (Van den Berg and Naicker, 1996). Furthermore, the socio-political system affected all areas and levels of South African society. It had kept people apart along racial and social lines, thus establishing inequalities. The majority of learners were subjected to inadequate, unequal and inferior education in suppressed facilities (Ashley, 1991). The low per capita spending on black education, for example, resulted in the majority of teachers being under-qualified and unqualified, saddled with a high pupil-teacher ratio and a lack of resources. The situation was

further aggravated by the historical effort of systematically dominating the education system (Morrow, 1989). Various vehicles were used to ensure such an education with a firm base in conservative, authoritarian values. The underlying principle was to mould good citizens to fit into an ordered society and to ensure obedience to the state through a practical "Bantu Education" and an academic "White Education" (Moulder, 1989). The aims were achieved by the governing apartheid regime through separate education systems for different race and language groups under a rigid political regime. The effect has been to emphasise the differences in racial groups throughout the curriculum to stress racist attitudes (Naude and Van der Westhuizen, 1994). Most of all, classroom activities were conducted rigidly with little room for personal growth in social development and creative and critical thinking skills. Instead, subservience was rewarded (Hartshorne, 1992).

The inequalities in social and academic gains in the school system left both educators and the majority of learners demotivated and angry while the social circumstances caused frustration and a sense of helplessness. This increased the educator's interest in politics (Hofmeyer and Pavlich, 1987). Inevitably, educators were disempowered and the social relationship between educators and their learners was destroyed (Morrow, 1989; Flannagan, 1991).

Subservience and emphasis on conforming stifle the learner's growth both academically and socially. Most South African students leave the education system ill prepared for the world of technology and social, political and economical change. South African learners lack the skills necessary to function as contributing members of society and economy.

South Africa is still in a transitional phase where justice and democracy are slowly being developed. Through education learners are being prepared to participate socially and economically in the future development of South Africa.

3.4.7 Economic changes

After having a depressed economy under an autocratic regime for many years, South Africa is presently blossoming into a fully democratic system and entering the international economic market. The international trend has moved from an industrial to an information-based economy (Kagan, 1994). Thus, in order for South Africa to participate in international economics, it must conform to international trends and standards.

As indicated by Kagan (1994) the global shift from an agriculture to an industry-based economy took about 100 years, but the transformation from an industrial to an information-based economy took only 30 years. Therefore it is predictable that our learners will experience numerous changes in their lifetime. The sanctions that were imposed on South Africa by the international economic community during the previous regime, brought about a huge gap which now has to be filled in order to attain economic equity with the rest of the world. Radical shifts are in process to develop our economic structures. Learners entering school today will have to be prepared to participate in the changes in our economy. Readiness for a career must include social and career skills compatible to the corporate world.

3.4.8 Preparation for economic changes

The radical transformation of the South African information-based economy has serious implications for the education system. If we are committed to the education of our learners, we must have a vision and look beyond academic achievement. We are now observing new and different kinds of skills necessary for the corporate world, i.e. working/career skills. These could include social, interpersonal, and other work-related skills. It is true that the majority of our learners have been deprived of a wide array of skills in the education system, but, we must look beyond that, and plan for the future of the new generation – preparing them for work under a wide range of economic and social tasks and reward structure. Not only do they have to learn how

to be competitive, co-operative and individualistic as tasks and reward structures demand, but learning must also include skills related to transforming existing task and reward structures. Economic success is dependent on transforming competitive tasks and reward structures into co-operative structures.

Schools must now prepare learners for participation in a social and economic world, which is rapidly changing. High technology management and an information-based economy are constantly changing (Kagan, 1994). Our vision must focus on placing a great emphasis on social skills. Our learners must be able to communicate and co-operate with others in a wide range of social situations. The educationally disadvantaged learners of the past era must acquire these skills, especially in situations involving fluid social structures, human diversity and interdependence.

The co-operative learning approach to learning offers a wide variety of structures, which will promote the broadening out of learning experiences to include interactive learning opportunities that are representative of the workplace of the future. Provision must be made to promote communication, higher-level thinking, and social problem-solving and co-operative skills while academics flourish. A heterogeneous team in the classroom represents a positive model of how society can cope with demographic, economic and socio-political transformation.

3.5 BENEFITS OF CO-OPERATIVE LEARNING

The benefits of co-operative learning, as noted in the research, are very pleasing to educators. It has been observed that co-operative learning is beneficial in furthering and developing co-operative learner teams, social interaction, enhancing learner achievement and positive social roles and skills as well as improving ethnic, cultural and bi-racial relationships.

3.5.1 Academic achievement

Research studies have been conducted to investigate the relationship between co-operative learning and achievement. In a summary of their findings over a period of 20 years, Johnson and Johnson (1994) have published several studies in which they indicate that co-operative learning experiences promote higher level reasoning strategies and greater level critical thinkers, more productivity and a higher level of achievement (Yager, Johnson, Johnson and Snider, 1986; Johnson, Maruyama and Johnson, Nelson and Skon, 1986; Yager, Johnson and Johnson, 1985; Tsibalo and Schulze, 2000).

It is suggested that traditional teaching methods tend to be outdated and do not provide opportunities for the development of the new skills to be acquired by learners for the twenty-first century (Slavin 1980). Co-operative learning provides ample opportunities for learners to work together, to be more productive, to master problem-solving techniques and to learn from each other.

The investigation of co-operative learning and its beneficial relationship to higher academic achievement has been tested in a wide range of subject areas such as Mathematics, Science, Language, Geography and Spelling. Most of them have found positive results. For example Okebukola, 1985, 1986a; Johnson, Johnson, Scott and Ramolae, 1985; Slavin and Karweit, 1981; Slavin, 1980c; Slavin and Oickle, 1981; Devries and Mescon, 1975, 1975b; Van Oudenhoven, Wiersma and van Yperen, 1987; Kagan, Zahn, Widaman, Scharzwald and Tyrell, 1985; Allen and Van Sickle, 1984). Even in South Africa it has been tested and has yielded positive results (Tsibalo and Schulze, 2000). It is evident that the effects of co-operative learning on academic achievement have been researched extensively and has yielded profitable results.

3.5.2 Race relations

With the influx of all racial groups from suburban to urban areas, educators must utilize strategies to accommodate all. Demographic changes demand drastic strategies. As educators we must be prepared to promote a positive environment in which learners may adopt positive attitudes towards their peers and race and ethnic groups. Studies in the United States indicate that progressive deterioration in race relations is inevitable among learners in heterogeneous schools. However, where co-operative learning strategies were applied, positive race relations among learners increased. Learners chose more friends from other races and reacted in more interactive patterns. Cross-ethnic friendships increased with the use of co-operative learning structures. The use of the original Jigsaw method is instrumental in promoting ethnic relations (Kagan, 1994). Other co-operative learning structures favour dramatic reductions or elimination of self-segregation prevailing among learners involved in co-operative learning experiences (Kagan, Zahn, Widaman, Schwarzwald and Tyrell 1985). On examining these observations and the positive outcomes, educators must realize that racial diversity in the absence of programmes that promote positive cross-race relations could lead to severe race relation problems that would threaten the efforts to survive in a democratic society.

Applying co-operative learning strategies would provide answers far beyond constructive educator-learner relationships and provisions of appropriate instructional material. All learners will have prime opportunities to interact positively when an environment lends itself to equity, both socially and academically. Co-operative learning strategies are structured in such a way that learners with special educational needs could derive the same benefits. Learners with special educational needs often lack the social skills and status compatible to their peers, which place them socially in a much more vulnerable position. The issue, therefore, necessitates facilitation of positive experiences, through the use of effective teaching methods, that would enhance their academic and social skills as well as their status.

3.5.3 Inter-group relations

The effects of co-operative learning contingencies on interpersonal interaction, social acceptability and self-esteem between learners with special educational needs and learners without special educational needs promote positive growth in interpersonal attraction, social acceptability and self-esteem between learners with special educational needs and learners without special educational needs (Yager, Johnson, Johnson and Snider, 1986). Kagan (1996) suggests that traditional methods promote individual learning contingencies.

Many researchers such as Madden and Slavin (1983), Van Oudenhoven, Wiersma and Van Yperen (1987), and Johnson, Johnson, Stanne and Garibaldi (1990) agree that the use of co-operative learning reveals positive interactive patterns among learners and they generalise their new learning to unstructured class and school activities.

3.5.4 Learners with special educational needs

All people have the potential to learn but they all need support or alternative teaching methods to assist them with their learning. Not all learners learn in the same way. Sometimes they experience barriers to learning and development, primarily because the system fails to recognize and accommodate their diverse needs.

Learners with diverse needs, such as learners with special educational needs, often experience failure in academic achievement, which lowers their self-esteem. For a variety of reasons, they often display social difficulties. However, it has been indicated that learners with special educational needs achieve much better with co-operative learning strategies. Within co-operative learning structures, learners work in heterogeneous groups in which all learners support each other and ensure that all team members understand and master their learning. This does not always happen at

the same time for all learners. It is for this reason that the outcomes-based curriculum provides flexibility and allows for learners to progress at their own pace. Team learning groups as an instructional strategy provides learners with special educational needs a support system within heterogeneous groupings (Slavin, 1980). Achievement is significantly improved compared to the traditional individualistic teaching methods. For example, in the United States, it is indicated that during the years of rapid social and economic changes, barriers to learning and development amongst learners improved considerably when co-operative learning structures were implemented (Slavin, 1984; Johnson and Johnson, 1994). About 375 studies have been conducted over the past 90 years to test the effectiveness of co-operative learning in productivity and achievement. Only 68 studies met the inclusion requirements of comparing co-operative learning groups with control groups. Forty-nine studies showed positive results and only eight favoured the control groups. A variety of co-operative learning strategies were applied.

The potential value of co-operative learning structure is that working together to achieve a common goal produces higher achievement regardless of race, sex, colour, economic status or academic ability. Dramatic achievement is not gained at the expense of the more privileged or academically advantaged learners. Both gain from each other's experiences and knowledge. Learners learn as they teach each other and if it empowers them, they may be more motivated to learn. Whatever the reason, the dramatic gains of low achievers in a co-operative learning setting are promising. Areas such as problem-solving, divergent thinking, creativity, quality performance, higher level reasoning, and critical thinking are tapped and beneficially exploited to promote creative learning. Furthermore, it is the expectation of the National Department of Education that teaching methods be used that would promote the learners' ability to think logically and analytically as well as holistically and laterally (Department of Education, 1997).

3.5.5 Cost effectiveness

Including learners with special educational needs in inclusive classrooms has become

the order of the day in many countries. South Africa is in the process of finalizing this as a policy. For many this is a bone of contention, but for the Department of Education the realities of inclusion in the pending Draft White Paper referring to the issue of inclusion the reality will be soon. The major issue has evolved around funding and effective teaching methods.

Very little research has been conducted into the cost-effectiveness of co-operative learning. But, reflecting on the literature of inclusion in South Africa, we note those issues such as social, academic and attitudinal skills must be addressed. This indicates that educators must acquire skills to address all these needs of learners within the context of inclusive classrooms. Since co-operative learning focuses on the development of academic and social skills, it appears to be a viable option to address the needs of many more learners in inclusive classrooms as opposed to only some in separate classes.

Despite the class size, learners working in co-operative learning groups, can be just as productive (Wulffe, Nyquist and Abbot, 1987). Large classes have been one of the concerns of educators. Research also indicates that co-operative learning is a cost-effective strategy. More manpower and smaller classes are not necessarily the answer to higher achievement. Thus special classes, large classes and schools are not necessarily the answer for learners with special educational needs. Co-operative learning, thus, seems to be a cost-effective option of addressing the diverse needs of learners in regular classrooms.

Co-operative learning groups are an economical support system for increasing learner achievement. The literature and studies clearly indicate that co-operative learning strategies could be effective in addressing the academic, personal, social, racial and ethnic relation development in the inclusive classrooms while costs are reduced (Levin, 1995).

In South Africa, it appears that this area of co-operative learning could be an area for active research. Throughout the literature on inclusion (Salend, 1994; Kauffman and Hallahan, 1994; Schulz and Carpenter, 1995; Stainback and Stainback, 1996; Adams

and Hamm, 1996; Vaughan, Bos and Schum, 1997; Jacobs and Gawe, 1998; Naicker, 1999) co-operative learning is promoted as a viable option in a teaching method for classrooms with diverse learners. It is the author's assumption that if this were not a cost-effective and beneficial way of addressing the needs of learners in inclusive classrooms, it would not come so highly recommended.

This has always been a major area of concern in the politics of education (Naicker, 1996). If one considers the fact that developing countries such as Nicaragua, Malawi, Botswana, Jamaica, Indonesia and El Salvador have been successful in acquiring the financial support from the corporate world or private funding (UNESCO, 1995) the concern of South Africans about fiscal constraints is debatable.

3.6 UNDERLYING PRINCIPLES OF CO-OPERATIVE LEARNING

Johnson and Johnson (1991), Kagan (1994) and Slavin (1977, 1978, 1979) all believe that there are basic principles to co-operative learning. In order to gain expertise, the basic principles must be understood before one can plan, structure and implement the concept.

The first and most important principle of all in co-operative learning is that the learners must firmly believe that they have to work together to achieve a goal. They must know that they are dependent on each other to complete a task. Positive interdependence demands mutual support and teamwork.

Secondly, co-operative learning promotes interaction among learners, preferably face to face. Learners must be assigned to groups that are heterogeneous to include mixed race, sex, culture and abilities. Teams could be as small as two to achieve a desired size for the co-operative learning structure. Group members are in close proximity to each other and discuss issues that will promote progress in achieving their goal (Tsibalo and Schulze, 2000).

Thirdly, team members have to assume individual accountability. Each learner must be accountable to contribute his/her share to achieve his/her goal. Each member's effort is assessed so that members are all aware of each other's needs and of how and where to provide assistance.

In the fourth place interpersonal skills must be developed for learners to perform in a team. Learners must learn how to relate to one another while learning subject matter. Task-work and teamwork require social skills such as leadership, decision making, trust building, communication and conflict resolution skills (Johnson and Johnson, 1994). Some of these skills must be taught prior to incorporating co-operative learning. Johnson and Johnson have developed their own procedures and strategies to teach social skills (1991).

Finally, co-operative learning incorporates group processing. Groups should be encouraged to assess their collaborative efforts and identify areas that need improvement (Bennett, Rollheiser and Stevahn, 1992; Tshibalo and Schulze, 2000). Group actions that are helpful must be discussed. Together the group must decide on their next social skill goal.

These principles of co-operative learning are integral components and must be incorporated in the activities so that teamwork can be effective. The emphasis is not just on the end result but on the social process that develops in the team as learning takes place and goals are achieved. Along with these principles, educators must have the ability to:

- Construct heterogeneous groups – displaying mixed ability, ethnicity, sex and linguistic diversity;
- Manage co-operative learning groups;
- Create opportunities for learners to maintain a will to co-operate through team building, class building, and the use of co-operative and reward structures;
- Teach social skills or build them into lessons where necessary;
- Build the basic principles of co-operative learning into a lesson; and
- Use all co-operative learning structures.

3.7 CO-OPERATIVE LEARNING STRUCTURES

After careful deliberation on the literature of co-operative learning, it was concluded (Kagan, 1994) that the description of Johnson and Johnson's co-operative learning approaches (1994) appear to be concise. These researchers divided co-operative learning methods into two approaches viz. the conceptual approach and the direct approach. In turn, Kagan (1994) has a third view, namely the structural approach. This approach appears to tie in with the direct approach.

3.7.1 Conceptual approach

This approach has its basis in the interaction of the theory of co-operative learning, practice and research. The emphasis is on a conceptual understanding of co-operative learning i.e. its nature, concepts as well as acquiring skills in applying co-operative learning to specific curriculum topics tailored to the needs of the unique circumstances of the learners. The conceptual approach assumes that each educator is confronted with his/her own unique set of circumstances in the classroom and co-operative learning strategies must be adapted to accommodate the learners and their needs. With this understanding, educators can think meta-cognitively about co-operative learning and develop their own strategies and lessons. The ultimate goal is to develop their expertise to such an extent that they can:

- structure any subject specific lesson co-operatively;
- incorporate co-operative learning strategies as a regular classroom practice;
- develop expertise to such an extent that they could teach others; and
- apply the principles of co-operative learning in other areas in their career path.

The learning together structure (Johnson and Johnson, 1991) is referred to as a conceptual framework. It is characterized by teammates in small heterogeneous groups working co-operatively to attain mutual learning goals. Together members of the team work on academic tasks, which often involves the preparation of cohesive teamwork. Social skills must be directly taught, practised, reinforced and processed.

The basic elements of co-operative learning, positive interdependence, individual accountability, face-to-face interaction, social skills and group processing are carefully incorporated into each learning together experience.

3.7.2 Direct approach

This co-operative learning approach entails training educators in a step-by-step procedure in how to apply co-operative learning lessons, curricula or structures that have been successful in other classroom situations. The difficulty with this approach is that it is not flexible and cannot be adapted to any situation.

This approach is evident in the work conducted by Slavin and De Vries (1978) and Slavin (1986a). It is known as Student Learning Teams (SLT); Student Team Achievement Division (STAD); and Teams, Games and Tournaments (TGT). Slavin, Leavey and Madden concentrated on Team Assisted Individualisation (TAI) and Co-operative Reading, while Slavin and Stevens further developed Comprehension (CRC) in 1986.

3.7.2.1 *Teams, Games and Tournaments*

This package is a combination of in-group co-operation, inter-group competition and instructional games (De Vries and Edwards, 1974). The educator teaches a lesson, and then the learners meet in groups of four or five. The groups must be a mixture of high, low and medium achievers. It is their responsibility to complete worksheet tasks as a team. They then proceed to play academic games as representatives from their team. The higher scoring weekly teams are publicised in a weekly class newsletter. Grades are allocated according to individual participation.

3.7.2.2 *Learner team achievement division*

This approach is a modification of Teams, Games and Tournaments. Basically it is identical, except of participating in academic games, learner take a weekly quiz.

3.7.2.3 *Team assisted individualisation*

This approach is directed at Mathematics. It is a highly individualised maths curriculum for grades 3 - 6 in which learners work on their own to complete maths assignments using self-instructional curriculum materials (Slavin, 1985). Learners are divided into teams of four or five, but team members do not work together. They only check each other's answers, administer tests and provided individual or team support when necessary. The curriculum units are designed in such a way that they are self-explanatory and cater to individual learning levels. Co-operative interaction is limited. Team scores are computed weekly and team members are presented with certificates based on the amount of work completed for the week. Learners are graded according to their individual level of work.

3.7.2.4 *Co-operative integrated reading and composition*

This approach deals with a set of curriculum material to supplement the basal reader and ensure that co-operative learning strategies are applied to reading, writing, spelling and language (Stevens, Madden, Slavin and Farnish, 1987). The entire class is divided into two reading groups. One group devotes their time to phonic decoding and comprehension skills while the other focuses on comprehension and meaning. Learners are paired within their large group and then paired with a pair of the opposite group. Assignments are allocated and completed within the two-paired groups. Learner scores are computed on all quizzes, compositions and book reports to contribute to a team score. Certificates are issued based on the group effort. Learners are graded on individual participation.

3.7.3 Structural approach

This approach is a content-free method of organizing interactive activities of individuals in a classroom. The approach emphasizes social skills. It is based on the idea that co-operative learning can occur without specific curriculum designed material. The approach also uses structures that allow for the systematic design of lessons with predictable outcomes in the social, academic, cognitive and linguistic domains. Structures could be categorized in areas such as teambuilding, class building, communication building and thinking skills.

Kagan (1994) experimented and developed programmes such as Think-Pair-Share and Numbered Heads and the Three-Step Interview. The Think-Pair-Share is a co-operative structure in which partners privately think about an idea or question. They then discuss their responses with one another. This is a relatively simple structure that can be useful for practically any situation. Johnson, Johnson and Bartlett (1990) have a similar structure that is known as Formulate-share-listen-create. Teammates first formulate responses, and then share and listen in turn, then together create a new response or perspective through discussion or elaboration.

Numbered heads is an easy four-step co-operative structure. Learners number off within groups so that each learner is a 1,2,3,or 4. The educator gives an instruction to the group. The educator tells the learners to put their heads together and make sure everyone in the team knows the instruction and answer. The teacher calls a number and only the student with that number can respond.

In the three-step-interview (Kagan, 1994), teammates interview one another. For example in a team of four, A interviews B while C interviews D. Roles reverse, with B interviewing A and D interviewing C. The group of four reconvenes with each person sharing his/her partners' response. Once the educators are fluent in applying co-operative structures in their lessons, they can proceed to create their own co-operative learning structures.

3.8 THE ROLE OF THE EDUCATOR IN CO-OPERATIVE LEARNING

The educator has four specific functions to perform as indicated in the following paragraphs.

3.8.1 Making decisions before the lesson begins

Two objectives must be formulated - an academic and a social objective. The academic goal relates to the cognitive content and skills to be learnt whereas the social objective relates to the interactive skills to be practised.

The educator must determine the group size to ensure success in both objectives. Learners must be assigned to groups that are heterogeneous to include aspects such as mix ability, cultural background, gender and learning style. The room must be arranged in such a way that the learners have easy access to resources as well as to the educator. They should also have room to move freely within the group. This will facilitate an interactive environment.

3.8.2 Setting the lesson

The educator must structure the lesson in such a way that the learners must work together as a team bearing in mind that they are dependent on each other to accomplish their goal. Tasks must be clearly explained in order to ensure a clear understanding of the final outcome and the criteria for the successful completion of the assignment. Individual accountability must be structured within the activity and the social objective must be clearly understood in terms of its greater contribution to learner success. Helping learners understand the importance of social skills facilitates effective learner processing skills and also ensures a greater achievement.

3.8.3 Monitoring and intervening during group-work

The educator assumes the role of facilitator during group-work. The learners' behaviour is monitored in terms of group interaction and social skill practice. When necessary, the teacher will assist all learners in the completion of their tasks and also teach collaborative skills spontaneously. Learners must be encouraged to discuss problem-solving and conflict resolution skills in the team. The educator could serve as a facilitator.

3.8.4 Evaluating the product and process of group-work

It is the role of the educator to assess groups, provide feedback on the progress and the process and also to allow opportunities for the learners to do the same. This could be conducted orally or in written form.

A co-operative learning framework demands extensive training for personnel so that educators are well informed about the structures, implementation and the practice of co-operative learning.

3.9 CONCLUSION

The movement towards the adoption of an inclusive education system by the South African government has set the scene for a change in the education system. This system is moving in the direction of understanding the rights of individuals, current social changes, disabilities, and active participation of all learners in their learning and development. This is a relatively novel idea in South Africa since we have been isolated from the international arena for many years. The discrepancies that prevailed in the education system for decades add more implications for the South African education system. Certain systems favour specific conditions or structures to effect implementation.

The paradigm shift to an inclusive education system with an outcomes-based curriculum has made it considerably difficult to find effective teaching methods for their implementation. Traditional teaching methods that concentrated primarily on memorizing data are undesirable and specific teaching methods must be utilized so that effective implementation can take place.

Inclusion demands that learners with diverse needs be accommodated within the regular classroom. In view of this, we need to take heed of teaching methods that would meet the needs of all learners. With the implementation of an outcomes-based curriculum, accommodation is made for learners with diverse needs to derive benefit from a unitary curriculum. The flexibility that is built into the curriculum allows learners to progress at their own pace. However, in recommending co-operative learning as an effective teaching method, we need to look at the principles of this method and how they assist in meeting the needs of all learners in South Africa.

As stated earlier, South Africa is in the process of transition from an autocratic to a fully-fledged democratic country. The issues that need redress in South Africa are interpersonal skills, large classes, co-operation, research skills, higher level thinking and interdependence and accountability within the system. These issues are clearly delineated in the critical outcomes of our new curriculum to prepare our learners for international standards.

Co-operative learning involves working together which would allow our learners opportunities for co-operation, teamwork and to conduct research and analyses together. The co-operation allows learners to know each other better regardless of their orientation. Learners are able to learn together and participate alone within an environment that allows them to actively construct knowledge in a supportive environment (Adams and Hamm, 1996). In co-operative classrooms communal responsibility and civic engagement prevails. When everyone is involved, co-operation amongst learners becomes part of the school ethos.

Furthermore, as stated earlier, South African schools are known for their large classes. Working within teams allows for team-based organizational structures, which

provide opportunities for the educator to reach and observe all learners. Educators are new to this teaching method and could discuss this with their peers and eventually encourage cohesion, co-operation and teamwork amongst their peers. Collaboration can reach beyond the classroom.

A common element that must be addressed in South Africa is the sense of integration of different societies. The structures provided in co-operative learning provide opportunities for face-to-face interaction, building of social skills and effective social interaction. Learners share a common interest and common ground for better civil discussions or cultural interests which are valuable for our learners. As educators sharpen their skills in co-operative learning, quality discussions across group lines and cultures could be fostered.

Increasingly, group work revolves around inquiry, problem-solving, collection of data, and analyses. Most of our disadvantaged/learners with special educational needs have never been exposed to these situations or these elements of learning. In working in heterogeneous groups adequate support for learning, building self-esteem and interaction encourages learners with special educational needs to participate in their own learning which makes it more meaningful.

Extensive training and workshops must be conducted to assist educators in implementing inclusion, an outcomes-based curriculum and innovative teaching methods that will facilitate the smooth running of the system. This demands funding and trained specialists that would conduct training. Already South Africa has fiscal constraints in the field of education, thus the implementation of co-operative learning will be greatly affected.

Including a whole range of diverse learners with special educational needs in a regular classroom has both supporters and opponents. The opponents have a variety of reasons for their opposition, one of which is the problem of how to effectively meet the needs of all these learners in one classroom. In viewing the principles of co-operative learning it appears that this teaching method has much to offer for all learners. In terms of inclusion, co-operative learning provides an alternative teaching

method that will address the social and academic needs of learners with diverse needs in an inclusive classroom.

Furthermore, attempts will have to be made by universities and teacher training colleges to include co-operative learning in their curriculum so that teacher trainers are exposed to innovative teaching methods before they enter the teaching profession.

Finally, since South Africa has a variety of constraints that will handicap educators in promoting an effective inclusive system, we need to progress slowly. As previously stated, co-operative learning comes highly recommended to promote social integration, higher achievement, social skills, racial integration and dealing with large classes. It would be advisable to pilot these projects first to facilitate a slow, effective and progressive implementation process.

CHAPTER 4**DEVELOPMENT OF AN IN-SERVICE PROGRAMME ON
CO-OPERATIVE LEARNING****4.1 INTRODUCTION**

In the previous chapters the reference is made to the socio-political and economic situation during the pre-democratic era as well as to the history of special education. Against this background it is evident that the extent of the inequalities in education for learners with special educational needs and educators of colour cannot be overstated. The effects of these historical inequalities can only be equated to the internal inefficiencies and unequal educational outcomes which currently prevail. Inefficiencies are reflected in a survey conducted by the Human Sciences Research Council 1997 (Porteous, 2000). One of the major inequalities is the lack of provision for effective teacher training programmes among all racial groupings.

Prior to the adoption of a democratic government in South Africa, white universities made provision for educator programmes in special needs, while other racial groupings had little or no formal access to such training (Gwala-Ogisi, 1990). Thus the majority of the educators were left under-qualified to meet the needs of learners with special educational needs. In addition to the lack of training, these educators were burdened with a variety of learners with diverse needs without effective teaching and learning methods to address the diverse needs of their class population. As presented in the previous chapter, co-operative learning is an instructional method that will assist educators to meet the diverse needs of all learners in a classroom. Thus all educators must be empowered to service learners with diverse needs in their classroom. The development of an in-service programme originates from this need for active empowerment of all educators in innovative

teaching methods that would allow them to effectively implement the new curriculum.

This chapter will focus on two areas. Part A will address the in-service programme while Part B will focus on learning and teaching.

4.2 RELEVANCE OF THE IN-SERVICE EDUCATION FOR TEACHERS (INSET) PROGRAMME

There is a general agreement amongst educators, researchers and observers of the education system in South Africa that In-Service Education for Teachers (INSET) is one of the most important areas of need (Ashley and Mehl, 1987). With the enormous disparities in the level of qualifications amongst educators from a variety of racial groupings, it would not be surprising that educators are in need of upgrading in a variety of areas to facilitate learning and teaching for all learners. In the former dispensation, each education department had its own criteria for hiring educators irrespective of the qualifications of the educator. The hiring criteria were based on the needs of the respective department, thus leaving some departments with a majority of under- or unqualified educators. This emphasizes the need for INSET programmes to promote their professional growth.

It is generally accepted that the strength of the education system lies in the quality of teaching conducted by the educators since they are the grass-root workers that effect the implementation (Le Roux and Loubser, 2000). It is thus logical that the educators have to adapt to changes in policy as well as teaching so as to provide effective teaching and learning.

Bearing this in mind, in the Minister of Education's "Call for Action" programme (Tirisano Document), one priority is school effectiveness and educator professionalism. In this document, both the development of the professional quality of the teaching force and the need to ensure that educators are developed to

promote and enhance their competence and professional skills are stressed (Department of Education, 2000). In addressing the needs of educators, it is imperative that INSET programmes provide opportunities for educators to aim at improving and updating their teaching practices, knowledge and skills.

Previously it was accepted that educator training was sufficient to address the needs of learners in the classroom. However the current perception is that an educator's training should be a continuous process (Le Roux and Loubser, 2000). INSET should thus not be seen as isolated instances but as on-going practices throughout the educator's teaching career. Likewise, INSET should not be viewed as a "crisis management" process but as a continuous effort to enhance the educator's professional development. In-service programmes are designed to assist educators to participate in the changing world of education. The acquisition of new skills and developing educational practices demand that we provide programmes that would prepare our educators for their new role in educational change. Some of these changes in education are collaboration, problem solving, consulting, and effective communication as global societal and economic changes are in process. Education is a vehicle to effect changes within these areas, thus in-service programmes must be designed to assist educators to adapt to new experiences, and to be adaptable throughout their working lives.

There has been a move away from the traditional knowledge-based education to a wider perspective of learner-centred, skills building education, which will feed in directly to our economic structures. Therefore we need to look for teaching and learning methods that will benefit learners in implementing the new outcomes-based curriculum.

4.3 CRITERIA FOR EFFECTIVE IN-SERVICE TRAINING AND EDUCATION PROGRAMMES

In South Africa there appears to be a complete lack of awareness and skills

amongst the majority of educators, in dealing with diversity amongst learners and flexibility in the curriculum (Marais, 2000). If educators are to deal with learners with special educational needs in inclusive classrooms, INSET programmes should be devised to assist educators in addressing the needs of these learners within inclusive settings. As stated earlier, it is believed that INSET programmes will greatly assist educators in empowering them to produce effective teaching and learning for all learners.

Van der Berg (1983) indicates that INSET programmes must be designed to meet the following criteria:

- **Personal growth** – Each educator's human potential must be maximized.
- **Professional growth** – The INSET programme must be designed so that educators' competence, confidence and relevant knowledge enable them to evaluate their own work in collaboration with their peers. Professional potential must be maximized.
- **Societal growth** – The INSET programme must consequently impact on the growth within the school and community to develop positive change.
- **School growth** – A consequence of an INSET programme must allow for schools to become more effective, more humane and more relevant institutions. INSET must not occur at the expense of the school, instead, it should maximize school growth.

In order to realize these criteria, careful and detailed planning should precede its implementation. Various authors (Dunlap, 1995; Castetter, 1996) have identified five steps in which to proceed with INSET. In the first place the need for such a programme needs to be assessed. Questions to be taken into consideration are

- What are the needs, deficiencies and problems?
- What are the priorities of the needs?
- What are the knowledge, attitudes and skills of the educators?
- What are the knowledge, skills and abilities required by the educators?
- What barriers to effective benefit exist?
- What are the objectives of the INSET programme?

By identifying the needs for the programme, the researcher is in control of designing a programme that would be relevant for the educator, thus promoting personal growth for the educators. This in turn would empower and develop the educator's skills in a specific area.

In step two (to promote professional development) the designer is to set the details for the INSET programme. Issues to be considered are the objectives, professional development activities, where and when to implement it, resources required, the objectives and how the progress of INSET programme will be measured. Important elements to take into account are the content, locus of the programme, programme methods, resources and participation.

Thirdly, the implementation of the INSET programme must be considered. Will the programme include workshops, investigation of various teaching and learning methods or visits to schools (Purvis and Boren, 1991)? Participants need ways and time for feedback on their performance for the day and also guidelines on how to give the feedback.

Step four provides for evaluation so that the educators and the researcher may have opportunities to reflect on the progress of the programme. According to Dunlap, (1995), evaluation allows educators to:

- Reflect and judge the progress of the programme;
- Assist the professionals in making recommendations for further activities; and
- Identify necessary organizational structures that may need changes for further professional development.

Finally, educators often attend INSET programmes to learn new techniques and yet they do never implement them. A follow-up programme needs to be established to support the educators in maintaining the new techniques they have learnt, thus promoting personal growth.

On-going INSET programmes are essential in the new South Africa. Drucker (in

DuFour and Berkey, 1995) emphasizes this view, as he believes that successful organizations of the twenty-first century will need consistent learning as changes occur in the world. No training programme can fully prepare educators for a lifetime in educational institutions (Steyn, 1999).

4.4 THE NEED FOR INSET PROGRAMMES IN SOUTH AFRICA

As discussed in previous chapters, the apartheid era has affected everyone in every sector and level of the South African society. Separating people along racial lines gave rise to many inequalities, particularly in education and educational training. The inequalities are a direct result of the apartheid regime where people were systematically manipulated to marginalise them along racial lines (Morrow, 1989). Serious concern exists at present about the quality of teacher training programmes and as mentioned earlier, transformation is taking place in this area. In general, the capacity of the existing in-service training programmes to equip educators with the skills and knowledge they need in order to accommodate diversity within an outcomes-based curriculum approach in these classrooms is questionable.

New policies in inclusive education demand changes such as shifts in the role of the educator and new approaches to learning and teaching, all of which need effective INSET programmes in order to make education in South Africa effective, and to promote meaningful experiences for the learners so that they can contribute in economic and social life (SADC, 2000; Thejane and Muthukrishna, 2000; Mpolweni, 2000).

4.5 AN IN-SERVICE PROGRAMME FOR CO-OPERATIVE LEARNING

4.5.1 Overview

The INSET programme was specifically designed to familiarise educators with an

innovative instructional approach to co-operative learning that can be used to provide effective learning experiences for learners with diverse needs in an inclusive classroom. However, the overall aim is for educators to empower themselves with co-operative learning structures so that they can assist in facilitating the educational transformation process.

The emphasis in the co-operative learning programme is on the development of a teaching and learning approach that could assist educators in the process of educational change. Through the utilisation of co-operative learning structures in implementing the outcomes-based curriculum, educators are instrumental in both the social and academic development of learners. As stated before, during the apartheid era educators were denied opportunities to empower themselves with the current trends in education, and to develop the skills and confidence necessary to provide an effective and meaningful education service to the learners. In view of this, the INSET programme was developed in two parts. Part A addressed the development of the in-service programme on co-operative learning and Part B the implementation of the in-service programme on co-operative learning. With this in-service programme, educators would gain empowerment in a novel teaching style that is both beneficial for educator and learner.

In Part B, gaining teaching empowerment, the educator acquires the necessary skills to accommodate learners with special educational needs in the regular classroom, to conduct assessment that would be meaningful to both the educator and learner, to motivate learners, and to be instrumental in the learning process of the child. It aims at empowering educators as a process and means of empowering learners. With this personal empowerment comes fundamental changes within the self.

4.5.2 Goals

The following goals have been established for the co-operative learning in-service programme:

- To encourage the development of learner-centred practices – such as co-operative learning – that would enhance learning;
- To encourage educators to move towards more collaborative teaching methods that are child-centred as opposed to authoritarian teaching methods;
- To encourage educators to be open to change in both the content of the curriculum and teaching approaches;
- To demonstrate to the educators how the teacher-child relationship becomes more humane, warm and constructive;
- To effect positive change in learner behaviour through the use of effective co-operative learning structures, moving to more active participation in the learning process;
- To promote an understanding and realisation of the power of co-operative learning as an instructional method;
- To promote an understanding of the rationale for co-operative learning structures;
- To design co-operative classroom lessons; and
- To bring about practice through classroom application.

4.5.3 Main sections of the programme

The co-operative learning in-service programme encompasses three sections, namely personal empowerment, teaching empowerment and practical experience empowerment.

4.5.3.1 *Teaching empowerment*

This component of the programme focuses on teaching style and specific classroom educators. Empowering teaching lies in the content and context of the classroom in which teaching strategies are implemented, examined and developed. Therefore the

programme includes sessions on the content and skills necessary to implement co-operative learning. Co-operative learning teaching method aims at providing the educator with the necessary skills and opportunity to derive meaning and understanding from the content presented.

This section of the in-service programme encourages the educator to use the desired techniques and strategies and transfer them into the classroom situation. It also emphasises the acquisition of the social skills that are essential in order to function in and cope with the changing society. As change agents, educators must be able to transfer the acquired skills to the learners so that they are empowered with the skills that they need to function in their changing world. For the purpose of this research study educator were allowed to implement fifteen-lessons over a three week period. The content of the learning area is only a vehicle through which learners are empowered.

4.5.3.2 *Personal empowerment*

The section on personal empowerment includes the need for co-operative learning to be implemented in the South African context. Educators must believe that through the implementation of the curriculum with co-operative learning, they can make a difference and be change agents. Since co-operative learning encompasses both social and academic outcomes, it provides opportunities for educators to reflect on their teaching practices in the context of the transformation in South Africa and to add meaning to the total transformation process. Personal development is thus contextualised in the socio-political context. Educators were provided with thirteen other sessions to learn and reflect on a variety of areas that would assist them in understanding co-operative learning and a variety of areas related to inclusive education.

Gaining knowledge on the background, history and other aspects of co-operative learning empowers educators to a commitment to change in education and society as a whole. Motivation is thus gained by becoming actively involved in the process

of realising the vision of the new curriculum. As understanding becomes more lucid, educators would be empowered to develop their own strategies in dealing with the changes in education and society.

4.5.3.3 *Practical experience*

Experiential empowerment focuses on the practical aspect of implementing the co-operative learning programme. The programme has activities that are built in to experience a variety of areas in the co-operative learning process. These activities provide the educators with first-hand experience in co-operative learning. Educators need to become the learners; questions and discussions provide active participation, face-to-face interaction takes place and a variety of outcomes achieved, depending on the content and context. As educators experience the process of co-operative learning, they gain confidence and ideas for experimentation, e.g. teaching a lesson and viewing the video on “Co-op Co-op”.

The in-service programme is structured in such a way that the educators learn and understand the need for co-operative learning in South Africa. They gain insight into the structures, classroom organisation, teaching essential social skills, dealing with a diverse classroom population, developing their own lessons, and implementing co-operative learning in their classrooms.

According to the Education Labour Relations Council, Resolution 7 (1998), educators are expected to receive 80 hours of professional development during one school year. This time could be utilised for the in-service programme. In-service sessions of one to two hours have been designed for the duration of this programme over a period of 3 weeks. These sessions could be conducted after school as educators are expected by law to be at school for 7 hours daily.

Part B of the in-service programme provides practical examples of sample units with a series of 15 co-operative learning lessons for grades 4, 5 and 6. These three examples will assist the educators in understanding how the lessons were

constructed, how co-operative learning principles are built in and how to set up their own lessons with guidance from the trainer.

A of Part two in the manual on the in-service programme provides the educators with complementary material that should be used in conjunction with the pre-designed lessons. These lessons should be taught to the educators so that they experience the method of co-operative learning in progress and its use for specific purposes. In essence then, the criteria set up for the in-service programme are aimed at empowerment.

4.6 THE DEVELOPMENT OF THE CO-OPERATIVE LEARNING PROGRAMME

The co-operative learning in-service programme works on the assumption that in-service programmes are strategies that assist educators in understanding and developing their own knowledge constructs. In this instance understanding and knowledge are used to implement co-operative learning as an innovative strategy to implement the new South African curriculum. The researcher believes that this in-service programme contributes to the improvement of quality educational change in both academic and social aspects. Teaching skills are vital to the learner-educator relationship.

4.6.1 Designing the in-service programme

The emphasis of the in-service programme was to design a programme that would assist the educators in understanding co-operative learning, the basic principles of inclusion, and to improve the academic, social and motivational skills of learners with special educational needs. The goal of the researcher was to identify specific methods to present the workshops to the educators in such a way that they were clear and comprehensible. After the literature review was completed, time was

spent on designing the in-service programme and its presentations. Seventeen hours of workshops were planned to conduct the in-service programme (see figure 4.5). In order to ensure that the educators had a clear understanding of the programme, follow-up activities were designed after part one and two (see Manual).

4.6.1.1 Programme delineation

One of the first tasks that confronted the researcher was to delineate carefully the salient characteristics of the programme. For example, what should be included in the programme, the list of material necessary, what methods to use in the presentation, the cost of the programme, the procedure and the management of the programme. Borg, Gall and Gall (1996) state that if you follow programme delineation ... *you need to analyze the programme to determine which of its aspects or components are to be included.*

In order to develop an effective programme, this aspect was of vital importance to the researcher.

4.6.1.2 Programme goals

Judgement about the merit and worth of any programme is vital to any study. If a programme does not have goals, it is difficult to imagine how it could be worthwhile in any respect. *A goal is the purpose, effect, or end-point that the programme developer is attempting to achieve* (Borg, Gall and Gall, 1996).

Once the programme goals (see 4.5.2) were established, the major task for the researcher was to determine to what extent the programme would achieve the goals in practice. The achievement goals were also instrumental in assisting the educator in determining the resources and procedures of how to achieve these goals.

4.6.1.3 Resources and procedures

Resources and procedures are the means used by the researcher to achieve programme goals. Resources include the equipment, space, material and other cost items needed to implement the programme procedures. For example, the researcher had to determine the cost of all the needs. As far as procedures were concerned the researcher had to determine how long it would take for the educators to master the programme, how long the sessions would last, and what type of follow-up activities were needed to ensure that they understood each component of the programme. Evaluative activities had to be developed to provide the researcher with valuable information of the effects of the programme on the educators. Once the researcher had reached this stage, a programme manual was developed for the educators. This manual was developed to assist the educators with reading material as well as with the procedure of the programme.

4.6.1.4 The programme manual

The programme manual is a guide for educators to use along with the in-service programme. One of the most difficult problems of training educators in co-operative learning is that they have been so used to working in the traditional way of whole class instruction or traditional group-work structure that they have never had the experience of an alternative way of instruction. It is difficult for anyone to change, but for educators to make a paradigm shift in instruction, inclusive education and curriculum is three times more difficult. It was thus necessary for the researcher to compile a thorough manual of important components that would assist the educators with changes related to new instructional methods.

The researcher collected enough data on co-operative learning to provide educators with the vital aspects to implement the programme. The second step was to sort through the information and decide what was to be included in the manual. It was thus decided to divide the manual into four divisions for easy accessibility to

relevant areas. Part one of the manual focused on the rationale, the theoretical background, reasons for using co-operative learning, benefits of co-operative learning, social games, selecting groups and roles, teaching group skills, team building activities, co-operative learning structures, and hints for successful co-operative learning. Part two of the manual concentrated on the planning of the programme, the role of the educator, and ways to conduct assessment. The information covered was vital to implement this programme in inclusive classrooms. It covered aspects such as the identification of learners with special educational needs, how to deal with their difficulties, as well as important components of outcomes-based education and authentic assessment. The follow-up activities included in the manual after each part, provided the educators with exercises to test their knowledge and understanding on the contents on each part of the manual.

The easiest decision in part three was the selection of the topics by the educators for their respective grades. Since the educators showed concern about the language ability of the learners in both schools, the learning area of language and communication was selected. Time was set aside in part three to practise designing lessons and material, which would be used in the implementation with the learners in the classroom environment. With the support of the researcher and the other educators, the educators were placed in a supportive environment to ensure an increased probability of success.

Part three displays a set of 15 lessons for each of grade four, five and six. A step-by-step guide in co-operative learning, its application of the structures and the use of the material in 15 specific lessons for grades four, five and six was work-shopped with the educators. This was developed so that the educators could refer to it at any time as well as for them to use in training other educators.

4.7 IMPLEMENTATION OF THE CO-OPERATIVE LEARNING PROGRAMME

The approaches used in the implementation of this in-service programme demonstrate the importance of transformation and empowerment in education. Furthermore, the programme is also based on the assumption that when learning is done in context and participation of the educators, it will be more relevant and meaningful.

4.7.1 Phase 1: The training of classroom educators

After approval was received from the Free State Department of Education to implement co-operative learning structured lessons in the schools, the principals of the elementary schools were contacted. The two principals granted permission. After permission was granted by the principal, several meetings were held by the researcher with the principal and the educators to describe the nature and purpose of the study. The researcher then conducted a presentation of the study to the principal and the participating educators. Training then commenced.

The training of the educators took place at the centres of learning after school hours. Alternative school venues were used and the researcher supplied materials for the training sessions.

A schedule was set up by the researcher and the educators so as not to infringe on the school activities. Once the schedule was established the workshops began. Thirteen dates were set which covered 17 hours of training (see Tables 4.1 and 4.2). The first set of workshops concentrated on co-operative learning in general, e.g. the nature of co-operative learning, reasons for using co-operative learning, the benefits of co-operative learning, composition and the selection of co-operative learning groups, functions of members of the group, social skills, team building activities, co-operative learning structures and hints for the successful use of co-

operative learning. Educators were also trained in how to observe the learners and how to keep anecdotes in a daily logbook. Furthermore, educators were in-serviced on learners with special education needs and their characteristics and basic ways of dealing with specific characteristics. This was an important aspect as the experiment also determined the effect of co-operative learning on learners with special education needs.

The following training areas were covered: how to start using co-operative learning and the role of the educator and planning for co-operative learning. After each set of training, the educators were provided with exercises to test their knowledge and understanding of the contents of the workshop. Once the educators had mastered the contents, they were given an opportunity to put theory into practice. In the previous paragraph the researcher refers to a series of 15 lessons. Based on co-operative learning principles and structures (Kagan, 1994), 15 lessons were designed by the educators with the assistance of the researcher. Great care was taken to ensure that the activities included the five basic principles of co-operative learning, namely positive inter-dependency, individual accountability, group processing, face-to-face interaction and a co-operative environment. In order to promote a positive attitude towards a change in instructional methods, the researcher had to think of a variety of ways to present the contents of the in-service programme to the educators.

As indicated before, Tables 4.1 and 4.2 present us with the training programme. Session one dealt with the history and background of co-operative learning. The researcher felt that this was an important aspect that would ensure that the educators understand what co-operative learning is all about and how it came to be such a relevant instructional method in the contemporary field of education. Once this was completed, they had to know why it was relevant for the South African context. Since the educational curriculum in South Africa has changed dramatically, new methods had to be acquired to implement the curriculum more effectively and to be on par with international trends. The five basic principles of co-operative learning were then taught to the educators. Once this was established, it was necessary for the educators to understand the benefits of co-operative learning.

This was an important factor as it is vital that it features in the structure of the lessons. The fact that classroom organization (group work) changes with the implementation of co-operative learning, necessitated the researcher to assist them in how to establish co-operative learning groups. Since learners are not used to working in groups, thus, it was necessary for the educators to learn how to teach the learners group skills necessary for group work. In order to allow for better understanding amongst the educators, the researcher used the educators' classrooms and assisted them in setting up co-operative learning groups. The educators took a survey of the behaviours necessary to teach in their classrooms for group work. They then proceeded to teach the group skills. Before session five the educators provided feedback to the researcher about their class groups and the skills they had taught them. The necessary input was provided by the researcher.

Once this was completed and the educators felt that they had enough support to continue with their class group work. They were presented with a variety of co-operative learning structures that they could use in lessons. They then viewed two videos, "Co-op, Co-op" and "Numbered Heads" in operation. At this stage part of the session was used to complete parts 1 and 2 of a questionnaire. The questionnaire was given to determine how much the educators had learnt about co-operative learning.

In the following session the researcher, with the assistance of the educators, conducted the pre-test to the learners. The following session was probably the most important session as the educators had to know what their role was in implementing co-operative learning. At this stage the educators, with the assistance of the researcher, designed lessons based on the topics they had chosen. This activity took four-and-a-half hours as the educators worked in pairs with the assistance of the researcher. The researcher also provided them with material, research material and books for the learners. The educators were taught how to implement these lessons and an hour practice session was held. Feedback was provided by the researcher and questions from the educators were answered. Before the educators were ready to start implementing the lessons, a session was conducted on addressing specific needs of learners with special educational needs in inclusive

classrooms, e.g. assessment procedures, behaviour and identifying specific difficulties. The educators were now ready to start implementing their 15 co-operative learning lessons.

TABLE 4.1
TRAINING PROGRAMME FOR SCHOOL A

School A			
Date	Training topic	Method of presentation	Time
April 18 th	The history and background of co-operative learning.	Drawing on the past experiences of the educators should elicit discussion. The facilitator fills in the unknown areas through the provision of information.	One-and-a-half hours
April 25 th	The need for co-operative learning in South Africa.	Lecture plus small group discussions on the need for co-operative learning	One-and-a-half hours
May 11 th	The principles and five basic elements of co-operative learning.	Lecture style	One-and-a-half hours
	The benefits of co-operative learning	Lecture style	
May 17 th	How to set up co-operative learning groups	Active participation from members in restructuring the physical set-up of the classroom and the setting up of the groups	One hour
	How to teach group skills	A social skill is selected from the manual. The pattern of teaching social skills is followed in the manual. A mock lesson is to be presented by the participants	Two hours
May 24 th	Feedback on the implementation of group and teaching group skills	Lecture-style information session on co-operative learning structures	
	Presentation of a variety of co-operative learning structures	This session maybe complemented with videos from Spencer Kagan on "Co-operative Learning" and "Numbered Heads"	
	Presentation of two videos on co-operative learning structures in progress		
May 29 th – 31 st	Conducted pre-test to grades 4, 5 and 6		6 x 50 minutes each
June 6 th	The role of the educator in co-operative learning and team members	Set up co-operative groups with the participants to solicit ideas on the role of the educator. The trainer will be the facilitator that will guide the discussions and assist in encouraging everyone to make contributions	One and half hours
June 13 th	Designing co-operative learning lessons	This is a practical activity – the educators design lessons with the assistance of the researcher on a pre-determined theme	Four-and-a-half hours

TABLE 4.1 (CONTINUED)
TRAINING PROGRAMME FOR SCHOOL A

School A			
Date	Training topic	Method of presentation	Time
July 27 th	Practise the implementation of co-operative learning lessons as designed – Grades four, five and six.	Educators are provided time to practise the implementation of their lessons. After discussing the contents of the pre-designed lessons, they are used for the implementation of co-operative learning; a small group of participants will make a decision on which part of the series of lessons they would like to present to the class. The presentation would take the form of a teaching lesson	Two hours
	Monitoring throughout the day	Discussion on the implementation of the lessons	Daily
August 14 th	How to conduct effective observation and keep anecdotes on learners' progress	Specific focus will be on a presentation of a variety of means of assessment – specifically observation: how to observe effectively and what to do with the information	One hour
	Question session on the pre-designed lessons and implementation	Written assessment like self-assessment, group assessment	
August 19 th	Addressing the needs of learners with special educational needs in inclusive classrooms	The facilitator introduces the session by posing a case, which is then discussed in groups with trainee as facilitator. A list of contributions is compiled	One-and-a-half hours
August 21 st – September 8 th	Implementation of the 15 lessons for the experiment for grades four, five and six		Fifteen 40 minute lessons
September 13 th	Conduct post-test to grades 4,5, and 6		6 x 50 minutes time slots

TABLE 4.2
TRAINING PROGRAMME FOR SCHOOL B

School B			
Date	Training Topic	Method of presentation	Time
April 19 th	The background and history of co-operative learning	Drawing on the past experiences of the educators should elicit discussion. The facilitator fills in the unknown areas through the provision of information.	One-and-a-half hours
April 26 th	The need for co-operative learning in South Africa	Lecture plus small group discussions on the need for co-operative learning	One-and-a-half hours
May 10 th	The principles and five basic elements of co-operative learning	Lecture style	One-and-a-half hours
	The benefits of co-operative learning and setting up groups.	Lecture style	
May 18 th	How to set up co-operative learning groups	Active participation from members in restructuring the physical set-up of the classroom and the setting up of the groups	One hour
	Teaching social skills	A social skill is selected from the manual. The pattern of teaching social skills is followed in the manual. A mock lesson is to be presented by the participants	
May 25 th	Feedback on the implementation of groups and teaching social skills	Lecture-style information session on co-operative learning structures	Two hours
	Presentation on a variety of co-operative learning structures.	This session maybe complemented with videos from Spencer Kagan on "Co-operative Learning" and "Numbered Heads"	
	Presentation of two videos on co-operative learning structures in progress.		
June 7 th	Conduct pretest to grades 4, 5, and 6		6x50 minutes each
June 14 th	The role of the educator in co-operative learning and team members	Set up co-operative groups with the participants to solicit ideas on the role of the educator. The trainer will be the facilitator that will guide the discussions and assist in encouraging everyone to make contributions	One-and-a-half hours
July 25 th	Designing co-operative learning lessons	This is a practical activity – the educators design lessons with the assistance of the researcher on a pre-determined theme	Four-and-a-half hours

TABLE 4.2 (CONTINUED)
TRAINING PROGRAMME FOR SCHOOL B

School B			
Date	Training Topic	Method of presentation	Time
August 7 th – 11 th	Practise the implementation of co-operative learning lessons as designed – Grades four, five and six.	Educators are provided time to practise the implementation of their lessons. After discussing the contents of the pre-designed lessons, they are used for the implementation of co-operative learning; a small group of participants will make a decision on which part of the series of lessons they would like to present to the class. The presentation would take the form of a teaching lesson	Two hours.
	Monitoring group skills	Discussion on the implementation of the lessons	Daily
August 10 th	How to conduct effective observation and keep anecdotes on learners' progress	Specific focus will be on a presentation of a variety of means of assessment – specifically observation: how to observe effectively and what to do with the information	One hour
	Question period on pre-designed lessons and implementation	Written assessment like self-assessment, group assessment	
August 12 th	Addressing the needs of learners with special educational needs in inclusive classrooms	The facilitator introduces the session by posing a case, which is then discussed in groups with trainee as facilitator. A list of contributions is compiled	One-and-a-half hours
August 21 st – September 8 th	The implementation of the 15 experimental lessons designed by the researcher, for grades four, five and six		15x 40 minute period lessons
September 14 th	Conduct post-test to grades 4, 5, and 6		6x 50 minutes time slots

The first three workshop sessions were conducted as lectures. The researcher first presented the second part of the sessions, then the educators were to do a short presentation on how they would teach a social skill of their choice. Session four was presented in the form of a lecture with the assistance of the in-service programme as a reference. Session five was conducted in lecture form with two videos being shown on co-operative learning structures in process. Both the videos are from Spencer Kagan – called “Co-op, Co-op” and “Numbered Heads”. The researcher conducted session six with the assistance of the special needs educator. Setting up groups in session eight was conducted in the form of a discussion for half an hour while the other half-hour was used in the classroom with the educators and learners. With the assistance of the educator the learners were divided in groups.

The researcher assisted in the reorganization of the physical structure of the classroom. Three tables/desks were placed together so that those six/eight learners could work together. Session nine was reviewed with the educators by the researcher. Once the review was completed, the educators had to review the lessons on their own again. Session ten was conducted in lecture style with inputs from the educators on specific issues and then practical activities were completed. In session eleven a mock lesson was performed with the educators as the class.

Finally a discussion was conducted on how the educators were to conduct observation of the learners and how to log their observations in a logbook. Educators were made aware of a variety of ways of observing the learners and what to look for during observation. These were to be written in the logbooks and they were to be part of a report back in the interviews with the researcher. Educators were also made aware of interviews which would be conducted by the researcher on a weekly basis and how and what to report on. Following this the educators could ask questions before the implementation of the lessons were in process.

As group discussion, "Think, Pair and Share", "Jigsaw", "Group work", "Free Writing", "Dramatization" and Round Robin" were applied. These structures were used in various lessons for various activities. Each group of lessons had their own academic and social outcomes. The grade five classes used structures such as group investigation, "Jigsaw", group discussion and "Round Robin". The grade sixes predominantly focused on the group investigation structure of "Co-op, Co-op". All the learner material was designed and made by the educators with the assistance of the researcher. Furthermore, supportive activities and material, evaluation sheets and pictures were designed and made by the researcher which were used in the implementation with the lessons (see Parts 3 and 4 of Manual).

A step-by-step approach to implementing co-operative learning, its application of the structures and the use of the material in 15 specific lessons for grades four, five and six were completed by the team. The in-service programme that covered the areas on co-operative learning was instrumental in assisting in the designing of the lessons and the material.

The next step towards developing the lessons was to decide on the broad language outcomes for the programme. As specified in the outcomes-based approach to the curriculum, specific outcomes had to be determined per lesson to achieve the broad outcomes of the programme. Following this, the educators had to determine the theme they would be using. Only the lessons could be planned to achieve the ultimate outcomes. According to the researcher's field notes, the educators appeared to be enjoying the development of the lessons.

The next decision was to train the educators in how to observe the learners and how to keep anecdotes in a daily logbook. Furthermore, learners with special education needs and their characteristics and basic ways of dealing with these characteristics were discussed, which also assisted educators in developing group activities that would be beneficial to all learners, including those with special educational needs. Once the lessons were developed, educators designed the material with the assistance of the researcher. Educators then had an opportunity to practise the lessons.

4.7.2 Phase 2: The development of lessons and materials

As discussed in the previous chapter, a series of 15 lessons, based on co-operative learning structures (Kagan, 1994), were designed by the educators with the assistance of the researcher. Great care was taken to ensure that the activities included the five basic principles of co-operative learning, i.e. positive interdependency, individual accountability, group processing, face-to-face interaction and a co-operative environment.

Developing lesson plans and materials demands planning and a systematic decision making process. The educators were divided into pairs according to grade levels. The first decision that had to be made was which learning area would be chosen. This was probably the easiest decision as the educators had already reported that language was an area of concern for both schools. The second

decision was to choose a theme for their grades. The grade four educators chose “Fables”, the grade five “Transport” and the grade six “The Universe”. Educators then worked together in grades to develop 15 lessons on a specific theme, including material. These lessons were the ones that they would implement in their classrooms for the study.

The grade four learners used multi co-operative learning structures such as group discussion, “Think, Pair and Share”, “Jigsaw”, “Group work”, “Free Writing”, “Dramatization” and Round Robin”. These structures were used in various lessons for various activities. Each group of lessons had their own academic and social outcomes.

4.7.3 Implementation programme (Part B) of the lessons in the classroom

In the implementation of any new process, it is always wise to let the learners know about any change. Three weeks prior to implementation, learners were divided into heterogeneous groups and instructed for one week on team skills. The respective classroom educators and the learners identified these team skills. The learners practised the team skills for two weeks before the educators implemented the lessons. Weekly focused group meetings were held with educators at both schools separately.

One week before the implementation of the 15 co-operative learning lessons, a pre-test (South African Standardized Achievement Test in Afrikaans as a First Language) was conducted with the experimental groups at schools A and B. The educators were now ready for the implementation of the 15 lessons based on the co-operative learning structures (Kagan, 1994). The study was carried out within the classroom of the pilot schools. Educators were trained in the implementation of the lessons and how to design and use the materials.

Prior to implementation the Grade four educator of school A was very nervous about the implementation. She was afraid that she would make errors in the implementation. It was suggested that all experimental educators discuss their experiences and support each other during the implementation process. She was also assured that the researcher would visit on a weekly basis to answer any questions and provide support.

While the 15 lessons were being implemented, the researcher visited on a regular basis to conduct interviews with the educators. During the second week of the researcher's visit, the grade five educator of school B had a traumatic experience. He was confronted with the news that his wife had terminal cancer. This was a major setback for this educator. However he assured the researcher that he would follow through in completing the 15 lessons. On the completion of the implementation of the 15 lessons, the researcher proceeded to conduct a post-test with both the experimental and control groups that participated, at both schools.

4.8 CONCLUSION

This in-service programme provides a comprehensive programme for educators on co-operative learning and its implementation and takes the criteria for INSET programmes as discussed in 4.3 into consideration. Furthermore the issue of learning and teaching in reference to co-operative learning and teaching in reference to co-operative learning is delineated with special emphasis on the education and teaching/learning. It is suggested that if any educator should wish to add other material to complement the pre-designed lessons, he/she may do so. The following chapter will focus on the implementation of an INSET programme and 15 lessons of co-operative learning. It will further focus on the effectiveness of the in-service programme in co-operative learning in terms of academic achievement, social skills improvement and improved motivation amongst learners.

CHAPTER 5

RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

As discussed in chapter one, professionals in the field of regular and special education have become increasingly concerned about the adoption of the UNESCO (1995) principles of an inclusive education system for South Africa. The concern stems from the inclusion of learners with special education needs in the regular education system while using a unitary curriculum. This clearly presents educators with a population of learners with diverse needs in the regular classroom. As stated in Chapter Four, most of our educators are un-qualified or under-qualified – a state that we have inherited from the former apartheid era (Hofmeyer, 1995). This presents us with a major challenge. Educators need to be re-trained, and in-service programmes must be developed in order to acquaint these educators with current trends in education in order to alleviate the frustration and the de-motivation of the educators (Thembela, 1985). Against the background of new education policies and White Papers, it is the researcher's contention that the development of in-service programmes would assist in empowering our educators so that there is mobilization in the field of education.

One cannot simply develop any in-service programme on co-operative learning and expect it to be successful. It is necessary to determine its attributes and whether it would be effective and beneficial to both learners and educators. As Wiersma (1995) states, we need to find answers to specific questions. An effective way of determining answers to specific questions is through research. The word "research" stems from the French word *rechercher* and is defined as a "careful", "systematic", "patient investigation" emphasize that research is more than a hurried process of

looking up information (Charles, 1995). In fact, research is necessary when there is a growing question in one's mind to which there is no readily available answer. Information is then found and made sense of and ultimately used to answer the question – sometimes failing to answer the original question.

As stated in chapter one (see par. 1.5) the primary aim of this study is to determine whether the intended outcomes of an in-service training programme on co-operative learning for educators have materialized. In other words, whether there was any significant difference in the academic achievement of learners with special educational needs as well as gains in social and motivational skills.

This chapter will provide the theoretical foundation for the design and methodologies of the study in terms of research process, research format, data collection methods, data analysis and a concrete and specific description of how the researcher proceeded with the study so that methodological findings can be shared. Furthermore, it will indicate how the research design was structured to verify reliability and to maximize the credibility and trustworthiness of the research results. As stated before, a research design needs careful and systematic planning, thus in order to facilitate the procedure, the researcher used specific headings to structure the proceedings of the study.

5.2 RESEARCH DESIGN AND METHODOLOGY

5.2.1 Introduction

A research design refers to an overall, detailed scheme for obtaining desired data (Charles, 1995). The methodology is the manner in which the researcher will go about to obtain that data. This means that the researcher had to plan a detailed scheme with an overall procedure of how the study was conducted to attain the final results. As discussed in Chapter 1 (see par. 1.6), the design of this study can be described as evaluative in nature. The main aim of such a research design is to

establish whether the intended outcomes of an intervention programme have materialised (Mouton, 2001:160).

Prior to embarking on the study, the researcher planned and structured the research process by conducting a literature review. This literature review provided a theoretical framework to answer the research questions and the interpretations. At the same time, the literature review provided a foundation for the in-service programme.

5.2.2 Participants and sampling

After the Free State Department of Education granted permission, primary schools were approached for their participation in this study. Lack of co-operation from schools impelled the researcher to seek the assistance of the research directorate of the Free State Department of Education. The following primary schools were identified by the Department: School A is located in a rural district and School B is an inner-city school. School A has a total school population of about 650 learners while School B has a learner population of 1010 learners. Both schools are located in "coloured" townships, comprising a sub-economic population with a few middle-class families. Each school's population is drawn from the area, which includes both learners of "coloured" and "black" orientation. Originally four schools volunteered to participate, however, in the long run, only the "coloured" schools co-operated and were willing to participate. Two "white" schools that originally co-operated declined just before implementation for a variety of undisclosed reasons.

Experimental and control groups could not be created by random assignment from a common pool, but an existing "control" group that appears similar to the experimental group was found (similar classes in the same school which could provide a point of comparison) (Babbie and Mouton, 1998).

5.2.3 Methods of data collection

For the purpose of this study the researcher (as discussed in chapter one, par. 1.1 to 1.2) found it necessary to use an integrated qualitative and quantitative research methodology. Babbie and Mouton (2001) indicate that there is considerable discussion amongst researchers regarding the feasibility of integrating both methods in one study. However, social researchers have found that using both data collecting methods have allowed them to collect more in-depth data. Since the aim of any study is to design and execute a project in such a way that eventual validity of the results are optimized, proper planning and the consideration of any threats to the validity must be taken in consideration.

Babbie and Mouton (2001) believe that using a quantitative approach allows researchers to probe more deeply into a particular view, whereas the qualitative approach allows for effective control of certain kinds of error. Furthermore, the quantitative approach also allows for standardization and application across many sites. In utilizing this second approach to data collection, any form of biased or selective interpretation is avoided from the observers/field workers/participants, which could affect the data collection adversely. By combining the qualitative and quantitative approaches to data collecting, we are able to ensure that a higher quality of data is acquired (Babbie and Mouton, 2001).

5.2.3.1 *Qualitative data collection methods*

- ***Observation***

In a sense, all types of gathering data involve observation of some kind. In general, the term “observation” is used to describe the data that are collected, regardless of the technique used in the study (McMillan and Schumacher, 2001:271). In qualitative research, observation is a more specific method of collecting data. As a technique for gathering information, it depends largely on the collector to “hear” and

“see” things, which are then recorded. The role of the collector is to be completely involved in the observation of the learner’s behaviours. In this study, it was necessary to train the educators in observing the learners and making notes about their behaviours.

According to Mertens (1998) observation occurs in a naturalistic environment without using predetermined categories. The observers were more interested in the behaviours as they occurred naturally in the setting as it was more meaningful for the participants. In this type of observation we refer to non-participant observation (McKernan, 1996). This is when the researcher is unobtrusive and does not engage in the role as observer. Instead, the educators conduct the observation, which will, at a later stage, be synthesized for analyses.

For this study both researcher and educators used observation as a data collection method as the educators were the individuals who could more easily observe the learners in context, both in setting and the work situation. Thus the researcher viewed the advantages of observation as stated by McKernan (1996):

- Naturalistic inquiry – the study is conducted in the natural environment of the participants;
- Time sampling – the observers could take as much time as needed to gain representative samples of behaviours; and
- Non-verbal behaviour – the observer could make notes on non-verbal behaviours such as laughing, enjoyment, facial expressions, or any other body language.

However, McKernan (1996) also continues by delineating disadvantages such as:

- Data may be difficult to quantify – unstructured methods of observation will rely heavily on descriptions rather than measurement;
- Small size of population observed – the fact that an individual is observed may rely on discussions of results in relation to the study;
- Generalization – since the population observed may be small, it is possible to generalize across populations; and
- Reactivity – learners may react uncharacteristically if they know they are

being observed.

In view of the disadvantages the researcher took heed of these limitations but the advantages outweighed the disadvantages in this study.

The educators conducted 10 hours of observation throughout the 15 40-minute lessons that were implemented. During these observations, the educators took notes of the behaviours of the learners while working in their co-operative learning groups with co-operative learning instruction and activities. The field notes included the learners' behaviour, what they were saying and what they were doing. In simple terms, the observations were clear notes on the response of the learners to the co-operative learning instruction. The educator's notes had to be explicit about the learners', not the observer's own opinions. On the other hand, the researcher conducted four observation periods in the classroom as participant observer. These observation periods were conducted while the learners were busy with their activities in the lessons. The researcher asked questions of the learners to extract responses from them. As the one aspect of the research centred on the social benefits and interactions that the learners would derive from the co-operative learning instruction, the educators and researcher had to be very observant and explicit with their anecdotes regarding patterns of behaviour.

- ***Anecdotes/field notes***

Anecdotes are widely used by educators. They are simply brief notes kept by the educator of actual accounts or events that are written up, sometimes verbatim (McKernan, 1996: 60). These anecdotes are best used to record unanticipated observed behaviours and could be placed under specific headings if necessary.

In this study the educators and the researcher kept a logbook in which they recorded the learners' responses to the programme. The educators were expected to write anecdotes on a daily basis, while the researcher made notes of her observations during the four times of her observations. By keeping anecdotes, the

educators could thus see whether a pattern of behaviour was developing amongst learners in the classroom in response to the programme.

- ***Semi-structured focus group interviews***

The interview is one of the most effective ways of gathering information. Interviews are conducted face-to-face or through personal contact (Mckernan, 1996:128). The interview has one advantage, as the interviewer can probe the interviewee in areas of interests as they arise during the interview. Basically, interviews allow the participants to express their own understanding of a situation.

Interviews are mainly divided into three types in terms of their content and organization: structured, semi-structured and unstructured. Structured interviews have a list of specific questions that are asked of the participants. In unstructured interviews, the issue and topic are left entirely to the interviewer. Once the interviewee has touched on a topic or issue, the interviewer can ask the interviewee to extend or expand (McKernan, 1996). Semi-structured interviews are guided by specific questions that are asked of the interviewees but they allow the respondents to raise issues and questions as the interview progresses (McKernan, 1996:129).

In this study, semi-structured interviews were conducted by the researcher with the educators. Glesne and Peshkin (1992) mention three advantages of interviewing:

- It provides an opportunity for the interviewer to build up a rapport with the interviewee.
- It allows the participants to gain sight of a variety of interpretations.
- It allows for flexibility in determining the questions, their sequences and how to ask them, which gives the interviewer greater control of the situation.

When interviews are conducted in a study, their contents must be written down. Researchers find that interviews can be time-consuming and costly. However, for this study the researcher found that the educators had training time after school,

which could be used constructively for the interviews.

A specific set of questions based on the literature survey, was compiled by the researcher to provide a basis for the semi-structured interviews but educators were also allowed to raise issues and questions relevant to the subject area. The questions focused on the actual events that occurred in the classroom in terms of the response of the learners to the new instructional method. The researcher also assured the interviewees that all answers would be entertained, they would remain anonymous and enough time would be available to answer the questions.

All semi-structured interviews were conducted after school hours when the interviewees were more relaxed and out of class. An interview session was conducted once a week while the programme was implemented.

In summary, the interviews sought to collect information about how the learners were responding to the new instructional method and material of co-operative learning in terms of social and academic behaviour.

5.2.3.2 *Policy documents*

As discussed in chapter one (see par. 1.6.2.1) the literature review formed a vital component of the research process. Furthermore a variety of documents were used as sources of information to design the lessons on co-operative learning. Documents such as policy documents, curriculum documents on outcomes-based education, the constitution and curriculum reports were accessed during the study to ensure that the programme content was compatible with the current curriculum expectations. The content of these documents also provided information of the fundamental principles of the South African critical outcomes as well as assessment procedures and other vital information that would be beneficial in the design of the programme.

5.2.3.3 *Quantitative data collection methods*

- ***Standardised tests***

Standardised tests are commonly used in education. The term is used in a process of obtaining data when a test is administered to subjects who respond either in writing or orally. In quantitative research, numerical data is used to attain more precise data. Standardized commercial tests are accompanied by norms, which allows for comparison. They usually have a high level of reliability and validity.

According to McMillan and Schumacher (2001) reliability refers to the extent to which the measures from a test are consistent. In simple terms: to what extent are the results similar over different situations in data collecting? The goal of developing reliable results is to minimize the influence of chance of any other unrelated variable. If a result is unreliable, it is inconsistent, useless and ambiguous. It is, therefore, necessary for researchers to select and use data collection methods that are reliable.

For the purpose of quantitative data in this study (pre-test/post-test evaluation) the researcher selected the **South African Standardized Language Test**. Both pre- and post-tests were used with both experimental and control groups. This specific South African Standardized Language test was used as a method of collecting data to ascertain the academic outcomes of the language ability of the learners after co-operative learning strategies were implemented by the educators.

The South African Standardized Language Test tests the learners' ability to comprehend written language and comprehension as well as derive correct meaning from the structure of language. Although the test does not address all four aspects of language: reading, writing, listening and speaking directly, there is an indirect integration and overlapping of all four aspects in the test (See Table 5.1).

The validity of the test is important. The content of the test is obviously very

important in achievement tests even though it cannot be emphasized statistically. In view of the fact that all the finer aspects of the core syllabi cannot be addressed in one test, the validity of the test depends on the extent of the presence of the content of the syllabus. Table 5.1 presents aspects of the current curriculum that are covered in this test.

The Human Sciences Research Council, Educational Psychological Division (1992), developed the South African Standardized Language Test in South Africa. As suggested in the manual, the test was conducted early in the morning in order to ascertain the most reliable results. The test consists of two sections.

TABLE 5.1
AREAS IN LANGUAGE COVERED IN THE CURRICULUM IN THE
STANDARDISED TEST

	Aspects of the curriculum	ITEMS		
		Grade 4	Grade 5	Grade 6
1.	Language and spelling	18	22	22
1.1	Sentence structure	2	4	2
1.2	Vocabulary	3	5	3
1.3	Structure of words	0	1	4
1.4	Comprehension	6	7	7
1.5	Idioms	5	2	3
1.6	Spelling	2	3	3
2.	Reading comprehension	27	23	23

The test is composed of a test booklet, answer sheet, marker's marking mask and an educator's manual. The total raw score of each learner was used to ascertain whether the learners had made any gains after the treatment was applied.

The results of the learners test are marked with an answer mask. It is important that the learners' responses are marked correctly and marks are allotted carefully. Factors to be considered are:

- If more than one answer is marked, the answer is wrong.
- If the same code is used for each answer, it is considered as wrong.

- The answer mask is placed over the answer sheet of the learner and the total correct answers are counted.
- Only visible pencil coded answers are considered.

The percentile, standard deviation and the stanines are determined from a given table of norms provided in the answer booklet.

- ***Questionnaire***

For the purpose of this study a simple questionnaire (Table 5.2) (to be used with educators) as an evaluative procedure was devised based on the literature review of co-operative learning. This questionnaire was divided into three parts. The first part of the questionnaire (20 questions) focused on the theoretical background of co-operative learning. Twenty questions were designed to determine whether the educators had gained an understanding of co-operative learning. This section of the questionnaire was implemented after Phase 2 (educator training) of the in-service programme. Part 2 of the questionnaire consisted of eight questions that focused purely on the educators' response to the application of the theory of co-operative learning in the development of lesson plans and material. Part 3 of the questionnaire focused on how well equipped the educators felt in implementing the co-operative learning lessons and whether they gained confidence in doing it again.

In designing the questionnaire, the researcher ensured that:

- the items were clear;
- no double-barrelled questions were included;
- the respondents were ready to answer;
- the questions were relevant;
- short, simple items were listed;
- no negative items were included; and
- no biased items or terms were used

(Babbie, 1998).

Once the questionnaire was designed, it was reviewed and discussed with the supervisors and other research colleagues from Vista University who offered very useful suggestions. It was then refined and ready for implementation (see Table 5.2).

TABLE 5.2
QUESTIONNAIRE FOR EDUCATORS

1.	THEORETICAL BACKGROUND	Yes	No	Not sure
1.1	I fully understand what co-operative learning is.	1	2	3
1.2	There are five important elements of co-operative learning.	1	2	3
1.3	I understand the benefits of co-operative learning.	1	2	3
1.4	Heterogeneous groups are an important factor in co-operative learning.	1	2	3
1.5	Co-operative learning promotes better academic achievement.	1	2	3
1.6	Co-operative learning promotes social development amongst learners.	1	2	3
1.7	A learner with special educational needs benefits from co-operative learning.	1	2	3
1.8	Different roles are given to learners in co-operative learning groups.	1	2	3
1.9	Each co-operative learning group has a group leader.	1	2	3
1.10	Before implementing co-operative learning, we first teach basic group skills.	1	2	3
1.11	It is beneficial to teach team building skills.	1	2	3
1.12	We must tell the learners about the new way in which they will be working.	1	2	3
1.13	We have to teach group skills before implementing co-operative learning.	1	2	3
1.14	There are many co-operative learning structures.	1	2	3
1.15	We must intervene when learners with special educational needs are having difficulty in the group.	1	2	3
1.16	Peer teaching is recommended in co-operative learning groups.	1	2	3
1.17	We have to keep a portfolio of the learners' work that was assessed.	1	2	3
1.18	Learners with special educational needs could be assessed orally.	1	2	3
1.19	The educator must complete an assessment.	1	2	3
1.20	Learners also complete selfgroup-assessment sheets.	1	2	3

TABLE 5.2 (CONTINUED)
QUESTIONNAIRE FOR EDUCATORS

2. SAMPLE LESSON PLANS	Yes	No	Not sure
2.1 The sample lessons were written clearly.	1	2	3
2.2 I understand what I have to do with the lesson plans.	1	2	3
2.3 The lesson plans were relevant to what we were doing in class.	1	2	3
2.4 I enjoyed developing the material.	1	2	3
2.5 It was difficult to develop the material.	1	2	3
2.6 It was difficult to develop the assessment forms.	1	2	3
2.7 The assistance of the researcher was helpful in developing the material.	1	2	3
2.8 I thoroughly enjoyed the in-service programme.	1	2	3
3. AFTER IMPLEMENTATION	Yes	No	Not sure
3.1 I enjoyed implementing the lessons on co-operative learning.	1	2	3
3.2 I was confident throughout the implementation of the lessons.	1	2	3
3.3 In my assessment of the learners I observed that learners were making progress academically.	1	2	3
3.4 In my observation of the group work, I noticed that the learners were eager to help each other so that they could achieve their goals.	1	2	3
3.5 My colleagues provided support throughout the implementation of the lessons.	1	2	3
3.6 I now understand how to implement co-operative learning to support the implementation of the curriculum.	1	2	3
3.7 I can use these sample lessons next year with my new learners.	1	2	3
3.8 I feel confident to share co-operative learning with other educators.	1	2	3

5.2.4 Data analysis

Data analysis is the final process which is employed when the data has all been collected and a meaningful way is used to construct and present the data. The onset of data analysis is when the researcher constructs the initial diagrams, and statistics and other relevant data information are finally recorded. The researcher

then asks a number of questions of the recorded data and slowly constructs an interpretation.

5.2.4.1 Qualitative data analysis

As discussed in chapter one (see par. 1.1), qualitative data analysis is an ongoing process. It is also a relatively systematic process of selecting, categorizing, comparing, synthesizing and interpreting to provide evidence and explanations of a single phenomenon of interest.

Data reduction refers to a systematic way of analysing data that sorts, focuses, discards and organizes data in such a way that final conclusions and interpretations can be drawn and validated. Analysing involves the breaking down of entities into intellectual segments, to determine how they can be put together and how they function (Charles, 1995: 33). Thus, in analysing data, a strategy must be used to take the raw data and reduce, reorganize and combine it so as to derive meaning from it. The outcome of analysing is thus, to make general statements about relationships among categories by discovering patterns in the data.

Three to four weeks of data collection were conducted through observation, semi-structured interviews and focus groups and this information was sorted and placed into School A and School B on a continuous basis. The researcher then proceeded to read through the data to become familiar with the content. Notes were made of relevant, meaningful and significant phrases and topics from the verbatim notes. MacMillan and Schumacher (2001) emphasize that this is a tedious and time consuming process and that it was. But, ultimately, it was a “creative” process that required making careful and considerable judgements about what really is significant and meaningful information in the data. As stated before, a specific time schedule was set aside to gather data.

The data in its raw state was ready to be collated, processed, analyzed, and synthesized to produce information that is meaningful and valid. After the raw data

from the various sources were collated, it was then ready to be analysed through the process of content analysis as defined in chapter one (see par. 1.1). McKernan, (1996:147) describes content analysis as being ... *concerned with inquiring into deep meaning and structure of a message or communication.*

The goal of content analysis is to uncover hidden themes, concepts and indicators of the content of the message. Content analysis is basically unobtrusive and non-reactive. The following steps were followed:

- First of all the researcher searched through the data by looking for negative or alternative explanations to develop topics from the raw data. By re-examining the content of the raw data, semantic units such as paragraphs and phrases relevant to the pre-determined questions were noted. Questions were asked such as: Are the phrases relevant to the phenomenon? What is the impact of co-operative learning on the learners? Does it apply to the original objective of the research study? This initial sifting and sorting through the data led to the following question: What is the theme discussed in each phrase/unit? This process schematically delineated a number of segments representing topics. Sometimes the number of segments that represent a topic varied.
- Secondly, data were consolidated. Data consolidation is the process of reading, thinking, trying to get interim topics, changing them when others were more suitably placed, checking them until every piece of data and meaningful information is categorised under various topics and even later re-editing the topics and data (Ely, 1991:145) until they are suitably placed. This was the most time consuming activity and demanded the researcher's full attention and judgement.
- Data were then coded and the phrases were listed in groupings under tentative topics that seemed to fit together. The researcher moved back and forth in the topics for confirmation. At this stage the researcher further evaluated the data for adequate confirmation and usefulness. The topics were determined for their usefulness in terms of developing categories. The topics were coded and developed into selected categories. As proposed by MacMillan and Schumacher (2001), topics can fit into more than one

category. Once the categories were determined, the researcher was ready to select patterns. Similar patterns between variables, commonalities and differences between subgroups and events were identified during this process. As themes emerged, the focus became clearer in developing patterns.

- Data were displayed in an organized visual representation of information that allowed the researcher to draw conclusions from the data and assisted in analyses. There are various ways of displaying data. For the purpose of this study the researcher chose to display the contextual data as conducted by the patterning process in a diagram. In this way the researcher was able to add summarize and add descriptive display to answer the research questions. By presenting a visual display, the picture clearly illustrated data reduction, which was part of the analysing process.

The coding of data led to a process of discarding and sorting of data that finally produced a preliminary picture from which conclusions could be drawn. Some of the data tended to overlap. The researcher had to take the overlapping and interrelationships between and within the topics and categories providing a basis for the behaviours of the learners during the learning process. In seeking to elaborate, substantiate and interpret the data, the researcher moved to the stage of data analysis. The following provides us with the steps used in data display and the patterns, topics and categories that emerged:

- Sorting and sifting the data
- Listing the topics for each data set
- Visual display of initial topics
- Final outcome and refining of categories and patterns.

5.2.4.2 Quantitative data analysis

In order to establish the academic gains that were made by the learners, the data from the pre- and post-test standardised tests had to be analysed by statistical

treated to determine the level of significance so as to make inference. This was conducted by an outside consultant from the University of the Free State. The Statistical Package for the Social Sciences (SPSS) was used to treat the raw data from the pre- and post-tests of the South African Language Achievement Test. Finally, in order to find the level of significance for the control and experimental groups of both schools for the regular and special educational learners, a t-test was conducted.

The data from the questionnaire were treated in terms of a nominal scale. A nominal scale merely sorts objects or attributes into different categories but does not reveal much else (Elmes, Kantowitz and Roediger, 1999). Nominal scales are weak in nature because they are classificatory and make use of frequencies. The number of positive, negative and uncertain responses were taken in their raw form and a percentage was calculated in terms of the number of total responses.

5.3 INTERNAL AND EXTERNAL VALIDITY

According to Macmillan and Schumacher (2001), validity refers to the extent to which inferences and uses made of the basis of scores/results are reasonable and appropriate. Even though it is idyllic, a researcher must attempt to “get it all right”. Therefore, as a researcher using a qualitative and quantitative research approach it is important that the study is carried out fairly. The entire process must have its basis in ethical principles about how the data were collected and analysed, how one’s own assumptions and conclusions were checked, how participants were involved and the way in which the results were communicated (Macmillan and Schumacher, 2001). The following subheadings explain the considerations in determining the validity.

5.3.1 Trustworthiness

In order to verify that the researcher had conducted the research correctly and the process of the research was carried out efficiently, it was necessary to check the assumptions of the research study in terms of trustworthiness.

According to MacMillan (2001) trustworthiness refers to looking at criteria for judging the quality of the qualitative research. Criteria that look at trustworthiness are credibility, transferability, triangulation and confirmability.

5.3.2 Credibility

Credibility is the most vital aspect of trustworthiness in qualitative research. In qualitative research, credibility tests whether there is a link between the way the respondents actually perceive social constructs and the way the researcher perceives the viewpoints. The researcher chose to use a variety of strategies to collect data so as to provide evidence of the credibility of the research. In this study the researcher used triangulation to cross-check the results.

5.3.3 Transferability

According to Mertens (1998) criteria for trustworthiness refers to the degree to which you can generalize the results of a study to other situations. In simple terms, if different researchers carry out further studies, using the same programme and methods, would the same results be obtained? This would include the same programme, general methods, training process, data collection strategies and process, transformation, data display and the responses of the study.

In qualitative research issues referring to credibility and validity depend highly on the skills of the researcher. According to Gall and Borg (1989) good observation and

documentation need trained observers in order for the best data collection to be obtained. The researcher, thus, had to train the participants to be good observers and keep detailed anecdotes. A special notebook was used to keep daily comments about the learners for reflexive purposes, relevant to the research questions.

5.3.4 Triangulation

Triangulation is the process of cross-validation among data sources, data collection strategies, time periods and theoretical schemes (MacMillan and Schumacher, 2001). To find regularities in the data, the researcher compares different sources of data and situations, to observe whether the pattern keeps recurring. In this study the researcher triangulated the data from three sources: focus groups, observation and semi-structured interviews. Checking these data obtained by a variety of ways contributed to the trustworthiness of this study.

Persistent data observation over a period of three weeks added credibility to the study. Through the use of written descriptions a variety of events surfaced which allowed the researcher to reflect on issues from previous observation. The researcher thus questioned whether the findings were comprehensible and sound to both the researcher and the readers.

The negative evidence of the findings was re-evaluated by the researcher to examine the credibility of the data. But the focus groups assisted the participants with negative experiences in guiding them with the process of the programme. Throughout the data collecting process, patterns of positive experiences emerged among all participants.

Number checks were verified by checking with focus groups whether the constructs that were developing as a result of the data collected and analysed were interpreted correctly by the researcher. This was done by the researcher sharing draft reports with the participants.

5.3.5 Confirmability

Confirmability could be viewed as objectivity. Objectivity means that the influence of the researcher is minimized. Thus, confirmability means that the interpretations of the data are a true reflection of the genuine data without any influence from the researcher. For this reason, the researcher reviewed the data thoroughly (confirmability audit) in conjunction with the dependability audit. This was to confirm that the conclusions were supported by the data.

5.4 ETHICAL CONSIDERATIONS

Written consent was obtained from the Free State Department of Education. The educators involved in the research were informed of the rationale of the research and assured of anonymity. They were also ensured that the study was designed in such a way that it reflected the current curriculum activities for the specific grades, thus that it would not interrupting any other aspect of the educators' and learners' normal functioning, or that of the school.

5.5 SUMMARY

As discussed in this chapter, evaluation research demands intensive and systematic planning in order to design and execute the research project in such a manner that the eventual validity of the conclusions and results are optimized. This chapter has highlighted the design and integrated qualitative and quantitative methods used to determine whether the following intended outcomes of an in-service training programme for educators have been realized: that there would be a significant difference in the academic achievement of learners with special educational needs as well as improved social and motivational skills.

CHAPTER 6

RESEARCH FINDINGS AND DISCUSSION

6.1 INTRODUCTION

As stated in chapter one (see par. 1.5), the primary aim of the research was to determine whether the outcomes of the intended in-service programme on co-operative learning for educators have materialised: namely if the academic achievement, social skills and motivation for learners with special educational needs have materialised.

For the past few years, the National Department of Education has implemented an outcomes-based curriculum in South African schools. Along with this, the concern about the pending inclusive education system that was about to be introduced must have made many educators feel more insecure and ill equipped for this challenge. In the literature review in chapters two, three and four, we clearly recognize that the majority of educators in South Africa did not have the opportunity to attend any training on how to deal with learners with special educational needs in the regular classroom. Dealing with learners with special educational needs in the regular classroom with a new curriculum further compounded their plight. In view of this, the researcher decided to find an innovative approach to learning that would service learners with diverse needs in the new curriculum. Bearing this in mind, the researcher decided on developing an in-service programme on co-operative learning that, as stated in chapter three (see par. 3.1), comes highly recommended to service learners with special educational needs in inclusive classrooms. It was envisaged that the implementation of the in-service programme would empower educators with an alternative teaching approach to implement an outcomes-based curriculum in inclusive classrooms. The study would further ascertain whether this instructional approach would assist learners with diverse needs in improving their academic achievement as well as their social and motivational skills.

As discussed earlier an integrated approach of data collection methods, using both qualitative and quantitative research methods, was implemented. This approach allowed the researcher to probe and delve into data to conduct an in-depth research to find answers to the research questions. At the same time, the in-depth research allowed for an investigation of the probability of supporting the research hypothesis. This chapter will focus on the research findings followed by a discussion on the research findings and a conclusion.

6.2 RESEARCH FINDINGS

In order to present the research findings of this study in an orderly and logical way, it is necessary to present background details of the educators. The impact of the in-service training programme, the response of the educators to the material development and the response of the educators to the implementation programme on the use of co-operative learning in inclusive classrooms will follow. Next the researcher will concentrate on the background details of the learners, the impact that co-operative learning had on their social and motivational development and finally, the impact co-operative learning had on their academic performance. Furthermore, the researcher will concentrate on the impact co-operative learning had on the general learners. Finally, the overall outcomes that co-operative learning had on all participants will be presented.

6.2.1 Background details of the participants and context

6.2.1.1 Educators

- ***Gender of educators***

Table 6.1 indicates that both males and females participated in the implementation of the co-operative learning lessons. More females (67,7%) participated. It was

impossible to acquire an equal representation of the sexes as the selection of participants was based on the available grades in the school.

TABLE 6.1

GENDER

	N	%
Male	2	33,3
Female	4	67,7
TOTAL	6	100,0

- ***Age group of educators***

TABLE 6.2

AGE GROUP OF THE EDUCATORS

	N	%
35 – 39	2	33,3
40 – 45	4	67,7
TOTAL	6	100,0

From Table 6.2 it is clear that this was a middle age group with the majority (67,7%) of educators between 40-45 and 33,3% between 35-39.

- ***Highest qualifications of educators***

When a new programme of teaching methods is implemented in an education system, it is important that the qualifications of the educators are taken into consideration. This was a new teaching method and some educators may have been exposed to the method in their academic training. It would also establish whether they had received extensive pre-service training.

TABLE 6.3
QUALIFICATIONS OF THE EDUCATORS

	N	%
Degree and further qualifications	0	0,0
Degree	2	33,3
Teaching certificate	4	67,7
TOTAL	6	100,0

The majority of educators (67%) had only obtained a teaching certificate whilst only two (33,3%) had obtained a degree in education. None had obtained a degree and further qualifications.

- ***Teaching experience of the educators***

Experience in teaching was just as important as age and qualifications. These factors could have had a bearing on how willing the educators were to respond to the in-service programme and how well they would implement the co-operative learning programme. Table 6.4 provides us with details on the teaching experience of the educators.

TABLE 6.4
TEACHING EXPERIENCE OF THE EDUCATORS

	N	%
1 – 5	1	16,7
6 – 10	1	16,7
11 – 15	2	33,3
16 – 20	2	33,3
TOTAL	6	100,0

The information gathered from the educators regarding their teaching experience indicated that most educators (66,7%) had teaching experience of between 11-20 years experience while only 33,3% (2) had between 1-10 years of teaching experience.

- ***Training in Special Education***

Table 6.5 provides the number of participants who had been training in special education.

TABLE 6.5
TRAINING IN SPECIAL EDUCATION

	N	%
Yes	1	16,7
No	5	83,3
TOTAL	6	100,0

Regarding training in special education, the above table clearly illustrates that the majority (83%) of the educators had had no training in working with learners with special educational needs.

6.2.1.2 Learners

- ***Number of learners and special educational learners per class***

The number of learners per class is an important factor in implementing a new educational programme on co-operative learning. The following table indicates that there was no equal distribution of learners amongst the classes. However, as stated in chapter five, due to unforeseen circumstances, intact groups had to be used.

TABLE 6.6
NUMBER OF REGULAR AND SPECIAL
EDUCATIONAL LEARNERS PER CLASS

SCHOOL	GRADE	N of Learners	Learners with Special Education Needs
A	4	40	5
B	4	36	3
TOTAL		76	8
A	5	37	10
B	5	32	4
TOTAL		69	14
A	6	24	9
B	6	35	7
TOTAL		59	16
TOTAL OF LEARNERS		204	76

Table 6.6 indicates that the number of regular learners per class in the majority of classes, in all grades, was consistent with the pupil-teacher ratio of South Africa. However, the number of special educational learners in grades 5 and 6 in School A was rather high.

- **Learners**

Both the principals and all the educators reported that most of the learners were experiencing difficulty with Afrikaans (language) grammar, spelling, phonics and reading are especially areas in which the learners were experiencing “problems”. Only a small group of learners were able to cope with the current language activities that were presented by the educators in the everyday work. Learners were unmotivated and very seldom visited a library and read for recreational purposes. Books at home were only read when the educators sent one home to read. Most parents were unable to assist the learners with their reading as most of them were illiterate. This is a great handicap for the learners when they experience difficulty. The school has no library facilities for the learners which limits them to reading

material. In general, these learners are not exposed to a variety of reading or language material except in verbal communication. This verbal communication for some learners also limits them in building a vocabulary as most of them speak Sesotho at home.

- ***School A and B***

Both schools A and B were located in a sub-economic area of the Free State Province. School A was located in the outer city limits whereas School B in the inner city limits. Conditions in the environment were not good as most of the parents are unemployed or did manual labour. The families were poverty-stricken and often learners were not well fed or the schools had to make arrangements with outside organizations to feed the learners. If this was not possible, some of the educators brought extra food to school for the hungry learners. The feeding scheme programme did not service all the schools and these two schools were excluded from the programme.

Only a small percentage of both communities were professionals, such as the educators or the librarian. Both principals and personnel complained about absenteeism as well as language difficulties amongst the learners. It was also reported by the personnel, that most of the learners came from mixed marriages, i.e. "coloured" and Sotho, and that both Afrikaans and Sesotho were spoken at home, of which one language was spoken more frequently than the other. It is evident that from this information that learners in these two schools would experience great difficulty in their language.

6.2.2 Quantitative research results

6.2.2.1 *Questionnaire for educators*

Educators who participated in the study, were trained through the in-service programme on co-operative learning. As discussed earlier, the in-service programme was conducted in three (3) phases. In the first stage of the training, the educators were trained on the theoretical background of co-operative learning and the diverse needs of learners in inclusive classrooms. On the completion of this phase of the educators were presented with a questionnaire (see chapter five) to determine their understanding of the content. The results of the questionnaire were analysed quantitatively. Tables 6.7 and 6.8 present findings from part one of the questionnaires. The raw scores are presented as well as the percentage gained on the knowledge of the content. The results indicate that the educators had gained a fair knowledge of the contents presented. However, there was some uncertainty around the benefits of co-operative learning and the importance of heterogeneous grouping (items 1.4 to 1.7). Likewise, half of the educators were uncertain about the peer teaching (item 1.16).

TABLE 6.7
RESPONSE OF THE EDUCATORS TO THE THEORETICAL BACKGROUND
OF THE IN-SERVICE PROGRAMME

1.	THEORETICAL BACKGROUND	Yes		No		Not sure	
		N	%	N	%	N	%
1.1	I fully understand what co-operative learning is.	6	100,0	0	0,0	0	0,0
1.2	There are five important elements of co-operative learning.	6	100,0	0	0,0	0	0,0
1.3	I understand the benefits of co-operative learning.	5	83,3	1	17,7	0	0,0
1.4	Heterogeneous groups are an important factor in co-operative learning.	2	33,3	1	17,6	3	50,0
1.5	Co-operative learning promotes better academic achievement.	2	33,3	0	0,0	4	66,7
1.6	Co-operative learning promotes social development amongst learners.	2	33,3	0	0,0	4	66,7
1.7	A learner with special educational needs benefits from co-operative learning.	2	33,3	0	0,0	4	66,7
1.8	Different roles are given to learners in co-operative learning groups.	6	100,0	0	0,0	0	0,0
1.9	Each co-operative learning group has a group leader.	6	100,0	0	0,0	0	0,0
1.10	Before implementing co-operative learning, we first teach basic group skills.	6	100,0	0	0,0	0	0,0
1.11	It is beneficial to teach team building skills.	6	100,0	0	0,0	0	0,0
1.12	We must tell the learners about the new way in which they will be working.	4	66,7	1	16,7	1	16,7
1.13	We have to teach group skills before implementing co-operative learning.	6	100,0	0	0,0	0	0,0
1.14	There are many co-operative learning structures.	6	100,0	0	0,0	0	0,0
1.15	We must intervene when learners with special educational needs are having difficulty in the group.	6	100,0	0	0,0	0	0,0
1.16	Peer teaching is recommended in co-operative learning groups.	3	50,0	0	0,0	3	50,0
1.17	We have to keep a portfolio of the learners' work that was assessed.	6	100,0	0	0,0	0	0,0
1.18	Learners with special educational needs could be assessed orally.	5	83,3	0	0,0	1	16,7
1.19	The educator must complete an assessment sheet/form.	6	100,0	0	0,0	0	0,0
1.20	Learners also complete self/group assessment sheets.	5	83,3	0	0,0	1	16,7

In Table 6.8 it is indicated that there was not much difference between the scores of the educators of schools A and B.

TABLE 6.8
BREAKDOWN OF THE RESPONSES OF INDIVIDUAL EDUCATORS PER
SCHOOL

Educators	School	Number of questions	Yes	%	No	%	Not sure	%
1	A	20	13	65,0	0	0,0	7	35,0
2	A	20	15	75,0	1	0,5	4	20,0
3	A	20	18	90,0	0	0,0	2	10,0
4	B	20	17	85,0	0	0,0	3	15,0
5	B	20	19	95,0	0	0,0	1	5,0
6	B	20	15	75,0	0	0,0	5	25,0

After completing the section on the theoretical background of co-operative learning, the educators were given an opportunity to design lessons and develop complementary material with the assistance of the researcher. On the completion of these activities, the educators were presented with the second part of the questionnaire. This section of the questionnaire focused on the response of the educators in applying the principles of co-operative learning in designing the lessons and developing material. Table 6.9 presented eight questions.

TABLE 6.9
EDUCATORS' RESPONSE TO THE DEVELOPING OF LESSON PLANS AND
COMPLEMENTARY MATERIAL

2.	SAMPLE LESSON PLANS	Yes		No		Not sure	
		N	%	N	%	N	%
2.1	The sample lessons were written clearly.	6	100,0	0	0,0	0	0,0
2.2	I understand what I have to do with the lesson plans.	6	100,0	0	0,0	0	0,0
2.3	The lesson plans were relevant to what we were doing in class.	6	100,0	0	0,0	0	0,0
2.4	Enjoyed developing the material.	6	100,0	0	0,0	0	0,0
2.5	It was difficult to develop the material.	1	16,7	5	83,3	0	0,0
2.6	It was difficult to develop the assessment forms.	3	50,0	3	50,0	0	0,0
2.7	The assistance of the researcher was helpful in developing the material.	6	100,0	0	0,0	0	0,0
2.8	I thoroughly enjoyed the in-service programme.	5	83,3	0	0,0	1	16,7

It appears that the educators had difficulty developing the material (item 2.5), however, with the assistance of the researcher (item 2.7) they enjoyed the activity (item 2.4) as well as the in-service programme (2.8). It was clear that they were ready to implement the programme as they knew how to implement it (item 2.1 to 2.4).

Part three (3) of the evaluation process included eight (8) questions on the educators' experiences during the implementation of the co-operative learning lessons. Table 6.10 provides us with the evaluation of observation of the educators during and after the implementation of the co-operative learning lessons.

TABLE 6.10
THE EXPERIENCES OF THE EDUCATORS AFTER IMPLEMENTING THE
CO-OPERATIVE LEARNING LESSONS

3.	AFTER IMPLEMENTATION	Yes		No		Not sure	
		N	%	N	%	N	%
3.1	I enjoyed implementing the lessons on co-operative learning.	6	100,0	0	0,0	0	0,0
3.2	I was confident throughout the implementation of the lessons.	2	33,3	1	16,7	3	50,0
3.3	In my assessment of the learners I observed that learners were making progress academically.	6	100,0	0	0,0	0	0,0
3.4	In my observation of the group work, I noticed that the learners were eager to help each other so that they could achieve their goals.	6	100,0	0	0,0	0	0,0
3.5	My colleagues provided support throughout the implementation of the lessons.	6	100,0	0	0,0	0	0,0
3.6	I now understand how to implement co-operative learning to support the implementation of the curriculum.	6	100,0	0	0,0	0	0,0
3.7	I can use these sample lessons next year with my new learners.	6	100,0	0	0,0	0	0,0
3.8	I feel confident to share co-operative learning with other educators.	4	66,7	1	16,7	1	16,7

In viewing the results in Table 6.10, it appears that the experiences of the educators in the implementation of the co-operative learning lessons were positive regarding the social and academic development of the learners, but that although they enjoyed implementing a co-operative teaching approach, they lacked confidence.

6.2.2.2 Standardized test results

Answers concerning the results of the academic achievement of the learners were ascertained through the comparison of a pre- and post-test of the standardized test. As stated in chapter five (see par. 5.2.4.2) the results were analysed by statistical means. The raw data of the learners with special educational needs, for each grade in both the experimental and control groups, were taken and by means of the

Statistical Package for the Social sciences the means, standard deviation and the p values were ascertained, both on a pre- and post-test. This was to compare whether the learners had made any academic gains in language after co-operative learning lessons were introduced to them.

TABLE 6.11
PRE AND POST-TEST MEANS, STANDARD DEVIATIONS AND P VALUES
FOR LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

School A		Experimental Group					N of learn.	Control Group				
Gr.	N of learn.	Pre-test		Post-test				Pre-test		Post-test		
		X	SD	X	SD	p>.05	X	SD	X	SD	p>.05	
4	5	11.4000	2.966	13.8000	3.633	.099	12	13.7500	3.415	13.0000	4.729	.491
5	10	13.3000	2.263	15.6000	2.716	.002	12	11.8333	5.132	10.7500	2.137	.339
6	9	11.5556	5.457	17.0000	3.905	.063	9	13.3333	2.693	10.4444	3.245	.119
School B		Experimental Group					N of learn.	Control Group				
Gr.	N of learn.	Pre-test		Post-test				Pre-test		Post-test		
		X	SD	X	SD	p>.05	X	SD	X	SD	p>.05	
4	3	16.3333	4.041	23.6667	5.508	.053	16	11.7500	6.414	10.3750	3.344	.397
5	4	14.5000	6.952	17.2500	5.620	.035	8	9.8750	2.800	13.0000	3.817	.017
6	7	14.0000	3.109	18.2857	3.498	.005	10	10.0000	3.590	11.4000	3.658	.497

TABLE 6.12
PRE AND POST-TEST MEANS, STANDARD DEVIATIONS AND P VALUES
FOR REGULAR LEARNERS

School A		Experimental Group					N of learn.	Control Group				
Gr.	N of learn.	Pre-test		Post-test				Pre-test		Post-test		
		X	SD	X	SD	p>.05	X	SD	X	SD	p>.05	
4	32	13.7500	3.672	17.6875	4.381	.000	28	17.3214	4.611	17.8929	5.580	.455
5	31	15.1613	4.797	16.4516	6.632	.157	25	18.2800	4.792	19.1200	5.036	.233
6	21	12.7619	4.742	17.5338	8.195	.022	15	13.2667	4.431	14.0000	3.891	.584
School B		Experimental Group					N of learn.	Control Group				
Gr.	N of learn.	Pre-test		Post-test				Pre-test		Post-test		
		X	SD	X	SD	p>.05	X	SD	X	SD	p>.05	
4	29	14.5517	4.680	19.0345	4.571	.000	20	17.3500	5.314	14.2000	6.872	.022
5	29	15.1034	4.419	19.7241	5.700	.000	24	15.0000	4.243	14.2500	3.992	.549
6	34	14.1765	3.713	17.7353	6.369	.000	25	14.7600	4.833	15.0800	4.751	.785

A two-tailed t-test was conducted to determine if the gain score was significantly different (MacMillan and Schumacher, 2001). A pre-determined level of significance of .05 was used for this study. This level of significance for the experimental group was evident in the learners with special educational needs in grade 5 at school A

and grades 5 and 6 at school B. However, MacMillan and Schumacher (2001) indicate that if the significance is between .05 and .10, it could be seen as a marginal significance. This was evident for the learners with special educational needs at School A in grades 4 and 6 and grade 4 at School B. Other significant differences that were noted was that the regular learners at school A in grades 4 and 6 and School B grades 4, 5 and 6. The grade 4 class at School B indicate that no significant gains were made.

6.2.3 Qualitative data collection results

The researcher collected the raw data then searched through it for negative or alternative explanations so that relevant topics could be developed. By re-examining the raw data several times, semantic units, phrases and paragraphs related to the pre-determined questions were noted. After a thorough examination, segments that represented topics were delineated. Once the researcher collected and searched through the data for phrases, units or paragraphs, meaningful information was categorized under interim topics and at a later time re-edited.

TABLE 6.13
TOPICS: SCHOOL A

Data Set 1 Focus group interviews	Data Set 2 Observations/Anecdotal/Field Notes
Work well together	Work well together
Enjoy activities	Enjoy activities
Respond well to each other	Respond well to each other
Noise level subsided	Noise level subsided
Complete work	Meet outcomes
Read to each other	Read to each other
Listen to each other	Listen to each other
Show interest in work	Ask questions to parents
Take part in active discussion	Conduct research on own
Assist each other	Shows self confidence
Positive educators response	Positive educator response
Asking for help	Helping LSEN
Paying more attention	Learners are motivated
Encourage other learners	Learners sharing ideas

TABLE 6.14
TOPICS: SCHOOL B

Data Set 1 Focus group interviews	Data Set 2 Observations/Anecdotal/Field Notes
Working together	Working together
Enjoy activities	Enjoy activities
Respond well to each other	Respond well to each other
Noise level subsiding	Noise level subsiding
Complete work	Meet outcomes
Show interest in work	Complete work
Assist each other	Assist each other
Take part in discussions	Take part in discussions
Positive parents response	Do extra work
Positive educator response	Helping LSEN
Conduct own research	Learners are becoming serious
Helping LSEN	Learners are paying more attention
Learners are more focused	Asking for assistance
Learners are sharing	Learners are more knowledgeable

The data were further refined to generate the following topics per school:

TABLE 6.15
NUMBER OF RESPONSES PER TOPIC PER SCHOOL

TOPICS	SCHOOL A	SCHOOL B	TOTAL
1. Work well together	26	27	53
2. Enjoy activities	19	29	48
3. Respond well to each other	13	20	33
4. Noise level subsided	12	17	29
5. Met outcomes	12	12	24
6. Read to each other	12	12	24
7. Assisted each other	10	11	21
8. Completed assignments	10	13	23
9. Listened to each other	9	11	20
10. Took active part in discussion	7	6	13
11. Positive parent response	8	4	12
12. Positive educator response	4	4	8
13. Did extra work	5	5	10
14. Conducted own research	2	1	3
15. Had self confidence	1	1	2

Based on the above topics, the number of topics can be presented graphically as follows.

Data was then organized in a visual representation which allowed the researcher to draw conclusions. The visual display allowed the researcher to view the data and an initial picture. Some data tended to overlap and the researcher had to conduct refining of the data. In seeking to elaborate, substantiate and interpret the data, the researcher moved to the stage of data analysis. (Table 6.13 to 6.15 and Figure 6.1).

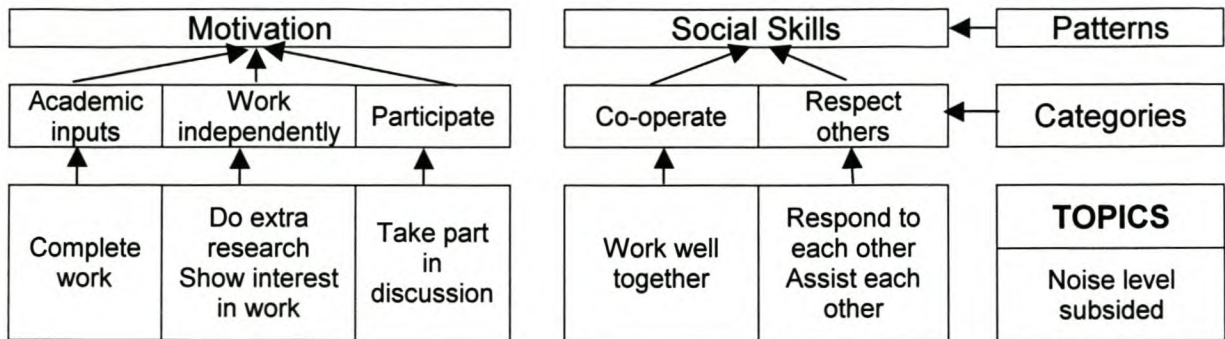
Sorting and sifting through the data of the visual display allowed the researcher to refine and group together topics to generate the following three categories: major, important and left over topics. The major topics refer to the most relevant topics to the research question, the important group refers to topics that are unique and important to the research question and the left over category may be important (MacMillan and Schumacher, 2000) and can be illustrated as follows.

MAJOR TOPICS	IMPORTANT TOPICS	LEFT OVER TOPICS
Working together	Complete work	Parents interest
Enjoying activities	Show interest in work	Educator's response
Responding well to each other	Assist each other	Show self-confidence
Noise level subsiding	Take part in discussions	Positive educator response
	Conduct research	

Categories to which the topics could be related were generated. Categories that arose were "participation, work independently, attend to academics, co-operate", and "respect others".

Questioning the emergent categories and their relationship to the research questions posed many questions as to how and why they are related. The final patterns were established as the pre-determined themes of the research question, i.e. social skills and motivation. The final result is displayed in a visual presentation in Figure 6.2. This was validated through the process of triangulation as discussed in chapter five (see par. 5.3.4) (MacMillan and Schumacher, 2000)

FIGURE 6.2

A FINAL OUTCOME OF THE CLUSTERING AND REFINING PROCESS

The data illustrates that learners had gained in social and motivational skills with co-operative learning instruction. Since the process of content analysis was used to describe each topic and its relationship to categories of the concept, the visual presentation clearly illustrates an analytical story. In reducing the data the researcher grouped segments and phrases to construct topics which were further clustered into categories. These categories were finally placed into patterns that coincided with the problem statement and research questions.

In viewing the data, one can observe that by the process of data reduction, the researcher was able to answer the following pertinent research questions: “Would the learners with special educational needs be motivated and gain beneficial social skills if co-operative learning is used as a classroom strategy?” and “Would learners with special educational needs and regular learners demonstrate improved academic achievement when co-operative learning is used as a teaching/learning strategy?”

All these elements play a major role in a learners’ learning and development throughout his educational path.

6.3 DISCUSSION OF RESEARCH RESULTS

6.3.1 Educators

As discussed in Chapter Four (see par. 4.2.1), educators are in great need of in-service programmes that will empower them to be more effective in educating learners with special educational needs in inclusive classrooms. The majority of our educators are either unqualified or under-qualified and ill equipped to meet the challenges facing them in education. The in-service programme was specifically developed and implemented to empower educators with an effective way of educating learners with special educational needs in inclusive classrooms. The findings provided evidence that the educators had a good understanding of the theoretical background on co-operative learning, but that most educators were not convinced that co-operative learning promotes improved academic achievement, social skills and motivation. However, after the implementation of co-operative learning lessons, their observations proved contrary to their first view. This finding is consistent with the views of other researchers such as Kagan, 1990; Johnson and Johnson, 1980; Madden and Slavin, 1983a; Mastropiero and Scruggs, 1995; Sharpe, York and Knight, 1994; Slavin, 1980b). In most of these studies one or more benefits of co-operative learning have been shown.

Not only were the educators empowered with a new instructional method, but, the following responses illustrate that they enjoyed the new curriculum, that they were motivated by it, and that they had learnt a great deal about it. They also knew they could implement it effectively to service all learners in inclusive classes:

- *“Both the learners and myself enjoyed the programme so much that we decided to make wire cars as an extra activity.”*
- *“I went to the library to get a video on “The Universe” which the learners enjoyed thoroughly.”*
- *“I attended a workshop on outcomes-based education and I could answer all the questions. In fact I could tell them more about co-operative learning”*
- *“When are we doing the next unit?.”*

6.3.2 Learners

Regarding the academic achievement of learners with special educational needs results indicate that their academic achievement improved after co-operative learning lessons were implemented. This is consistent with the literature (Slavin, 1983a; Hunt, Stubb, Alwell and Goetz, 1994; Johnson and Johnson, 1991; Okebukola, 1984b, 1995, 1986a). By implementing co-operative goal structures, the achievement of learners with special educational needs in an inclusive classroom improved. In School A it is indicated that learners with special educational needs in both Grade 4 and 5 had made significant gains whereas the learners in Grade 6 made marginal gains. In School B the Grades 5 and 6 made significant gains whereas the Grade 4 learners made marginal gains. However, all special educational learners responded positively to the co-operative learning activities by showing gains. The regular classroom learners also benefited from the programme in academic achievement. It is indicated that in school A, both Grade 4 and Grade 6 made significant gains whereas in School B all grades made significant gains. Thus, co-operative learning activities are positively associated with improved academic achievement.

Qualitative data indicated that learners had also made gains in social and motivational skills. In analysing the data, various topics, categories and themes emerged that indicated positive growth (semi-structured interviews, anecdotes/field notes and observation).

However, this does not mean that all learners acquired these skills readily. As indicated in the literature review, basic group skills had to be taught first before the co-operative lessons could be implemented. This was to ensure that the learners knew what was expected from them in the groups with a teamwork spirit.

We cannot assume that all learners acquired the social skills at the same time. We can only assume that with the working together, participation, subsiding of the noise level, concentration, co-operation and showing respect for each other that learners gained social skills and understood and mastered their own learning at their own

pace in a supportive group structure. This is consistent with the literature review on co-operative learning of researchers such as Madden and Slavin (1983a), Johnson and Johnson (1997), Kagan (1997), and other researchers.

Given the current movement towards inclusive education, all learners were observed as a group but in heterogeneous groups. It was found that learners at both School A and School B had acquired both motivational and social skills. As indicated in the raw data, learners worked well together, co-operated, participated and assisted each other where necessary, for example by reading to each other, listening to each other, completing assignments and responding well to each other. These attributes can be classified as co-operative skills. The ability to adjust from operating as an individual to a co-operative way of working effectively together with and communicating with others can only be learnt when one works and interacts with others. When co-operative learning strategies are implemented, learners work in group situations where they have to work and interact with each other. Thus it appears that when the educators implemented the co-operative learning strategies, the learners gained positive social skills (Johnson and Johnson; 1990, Kagan, 1994; Tshibalo and Schulze, 2000). Not alone did they learn new social skills, but they also showed a great interest in their work to the point where some conducted research on their own. Kagan (1994) indicates that this is consistent with the literature where some learners display self-direction and become more internal in their sense of control. Learners instructed in co-operative learning strategies displayed a greater sense of intrinsic motivation. In fact, the response from educators was that learners were completing extra research on their own. The educators also reported that the responses from the community indicated this. The local librarian at School B asked the educators what they were doing at school as the learners were conducting research at the library. Likewise, the parents at School A wanted to know what the educators were doing with the learners as they were searching for answers that the parents could not respond to. This is a clear indication of motivation amongst learners. As the literature review indicates, these are some of the potential values of co-operative learning activities. When learners work together towards a common goal, motivation and higher achievement are gained as they learn from each other.

It was also recorded in the raw data that most learners completed their tasks. The learners enjoyed the activities and spent more time on their tasks. This is a consistent finding in research on co-operative learning (Kagan, 1994). It is believed that within a supportive environment learners listen to each other and learn from each other. With this process in operation, learners pay more attention to their academic work. Kagan (1994) notes that increased time on task has been associated with increased academic achievement. The learners who did not complete their tasks could have failed to do so for a variety of other reasons.

The study suggests that learners were highly motivated throughout the implementation of co-operative learning lessons. Most learners with learning difficulties display characteristics of self-helplessness. In order to overcome this, they must become confident and more self-controlled. Learning to identify their capabilities and being accepted by their peers (or the group in this case) allows for participation. In co-operative learning other learners and the educators assist wherever they can. Setting clear outcomes and focusing on the strengths of learners, allows for acceptance. Learners tend to devote positive energy and enthusiasm to activities when the group provides support.

As indicated before, not only did all learners benefit from the co-operative learning but the educators also benefited from the INSET programme. In terms of the educators, it is the researcher's assumption that the educators benefited much from the INSET programme. This is clear from their responses in the focus groups where questions such as "When are we doing the next unit?" and "We now have a clearer picture of outcomes-based education".

Empowerment demands the development of a belief in what you are learning and in yourself. This belief is gained through the teaching of the topic. In this study the educators were taught the underlying principles and process of implementing co-operative learning in the classroom. The researcher assumes that they gained the necessary confidence in themselves, acted and acquired the necessary understanding to implement the programme. This is evident in the fact that the learners gained positive benefits from the lessons. The researcher believes that the

INSET programme was a key strategy in assisting the educators to empower them with a powerful teaching method. Not only did they gain knowledge about a new teaching method, but they also empowered themselves to use co-operative learning as a means to empower learners. This in turn contributed to the improvement of a quality education for all learners in inclusive classrooms. The development of teaching skills thus had a positive impact on the relationship between the educators and the learners. The empowerment of the educators also indicates that the goals of the INSET programme, as stipulated in chapter four, had been attained.

6.4 CONCLUSION

Within the South African context, great demands have been made on educators. With the implementation of a new curriculum and the inclusive movement of servicing learners with special educational needs in the regular classroom, educators are facing a monumental task. New methods of approaching the curriculum and teaching learners with special educational needs must be acquired.

The empowerment of educators would assist them in providing a quality education in inclusive classes to address the needs of a diverse classroom population.

The demand for innovative teaching methods has stimulated researchers to investigate alternative methods to implement the new curriculum effectively so that those learners with special educational needs could benefit from the same curriculum as their peers in the regular classroom. Whilst other countries have implemented and experimented with educating learners with special educational needs along with their peers in inclusive classrooms, South Africa is only starting now. Not all educators are familiar with co-operative learning, but with the implementation of the new curriculum, educators are being exposed to co-operative learning strategies.

In view of this, South African educators need to be empowered to use innovative teaching methods like co-operative learning to service all learners, including learners with special educational needs, in the regular classrooms with the same curriculum in order to provide all learners with a quality education.

CHAPTER 7

SUMMARY, FINDINGS, LIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

Over the past eight years, South Africa has observed a process of societal and educational changes during which educators have had to make adaptations without prior training. All educators, whether in rural or urban areas, are confronted with large classes, are ill-/unprepared to deal with a diverse learner population, and experience a lack of resources for learners who are experiencing barriers to learning and development. This study focused on the development and evaluation of the outcomes of an in-service training programme for educators in co-operative learning. This chapter gives a brief summary of the research, the conclusions and recommendations.

7.2 SUMMARY

In order to familiarise the researcher with the current trends in the education of learners with special educational needs, **Chapter one** presented an introduction and general overview of the move towards the current inclusive education practice globally.

After the election of a democratic government in South Africa in 1994, the new government decided to adopt an inclusive education system that would include learners with special educational needs in mainstream schools. The factors that led to the development of an inclusive education system in South Africa are

discussed in this chapter with specific reference to the South African Constitution: "... all learners must have access to a quality education and a unitary curriculum which clearly promotes the rights of all learners including those with special educational needs".

South Africans have embarked on an extended project to accept all learners in one education system regardless of their differences. The many challenges inherent in this transformational effort include the shift from traditional teaching methods to innovative and creative instructional methods, especially in addressing the learning needs of a diverse classroom population in inclusive classrooms.

Against this background the primary aim of this study was to determine whether the following intended outcomes of an in-service programme on co-operative learning had materialized: -improvement of academic achievement, social skills and motivation for learners with special educational needs.

The research design is evaluative in nature and the intended outcomes of the in-service training programme were evaluated with the aid of qualitative and quantitative data collection methods.

Chapter two described the development of special education in South Africa. The discussion of the socio-political and economic divisions along racial lines were presented a clear understanding of the events that contributed to and affected the education of learners with special educational needs in South Africa over the years. Against this historical background, the issues that need to be addressed in order for all learners to derive benefit from a unitary system became clear.

Furthermore, the discussion of social and economic discrimination practices clearly presented a picture of the current dilemma in which special education finds itself. Not alone did these practices impact on the education of the learners, but also on the educators who were denied access to effective educational

practices. As a result of this lack of exposure they found themselves unable to deal effectively with the needs of learners with special educational needs. Against this background factors such as poverty, under-/unqualified educators, the lack of educational support services, little or no service delivery programmes for learners of colour, rigid curriculum practices and untrained educators that impacted negatively on the education of learners with special educational needs become apparent.

It became clear that specific strategies were imperative to deal effectively with learners with special educational needs in inclusive classrooms. A flexible outcomes-based curriculum that would accommodate all learners, and effective teaching methods that would enhance and motivate learning and development were needed. In terms of the educators, inclusive education demanded that their role be of a more facilitative nature.

Finally, changes needed in the curriculum were discussed in more detail. A flexible curriculum is of great importance to learners with special educational needs. A major issue that arose was, the implementation of innovative teaching methods to address outcomes-based education so that learners with special educational needs could also derive benefit from the curriculum.

In **chapter three** co-operative learning and the need for this approach to learning were discussed. Issues that were debated within the South African context included:

- Changes in social practices
- Changes in economic practices
- The move from agronomy to industry
- Moving to an information-based management industry
- Demographic changes
- Urbanization
- Racial diversity
- Achievement crisis
- Race relations

- Language barriers

Bearing the South African situation in mind, the next section dealt with the benefits of co-operative learning and the impact it may have on learners with special educational needs. Benefits of co-operative learning were discussed in terms of:

- positive academic achievement,
- promoting improved race relations and
- improved inter-group relations.

Chapter four focused on the development of an in-service programme on co-operative learning. It is important to understand the current relevance of in-service programmes for educators in South Africa. Specific criteria for effective in-service training and education were discussed in terms of personal growth, societal growth and school growth. It highlighted the benefits of an in-service programme in all these growing areas.

After the important elements of an in-service programme had been discussed, the development of a co-operative learning in-service programme was fully explained in terms of its goals, main elements, teacher empowerment, personal empowerment, practical experience, theoretical assumptions, process and delivery. The chapter concluded with a schedule for the in-service programme.

The second part of this chapter provided a thorough description of the co-operative in-service training programme for the educators. The in-service programme was presented as follows:

- The development of an in-service programme on co-operative learning and
- The implementation of a co-operative learning programme.

Part A described the procedures followed to design the in-service programme. A carefully planned procedure was described in terms of developing goals, determining resources and the procedures used in the effective implementation

of the in-service programme as well as in the development of a manual for the use of both the educators and the trainees. Part B, Phase One was presented in terms of the training procedure for the educators. A full description and schedule were provided along with the format of the sessions. Phase Two described how the educators and the researcher developed the co-operative learning lessons and the learning material. Finally in Phase Three an explanation was given on the implementation of the 15 co-operative learning lessons.

In **chapter five** the research design and methodology were discussed in detail. As mentioned earlier, the research design of this study is evaluative in nature. Qualitative data collection methods included observation, anecdotal/field notes and semi-structured focus group interviews whilst the quantitative data collection methods included The South African Standardized Language Test and a questionnaire. Data analyses included content analysis of the qualitative data, and in terms of the quantitative data, the statistical procedures and methods that were used were discussed. Finally, internal and external validity were discussed in terms of credibility, transferability, triangulation and confirmability.

Chapter six included the research findings and a discussion on the findings. The chapter initially provided a brief overview of the previous chapters. This was followed by a presentation of the background details of the educators in terms of gender, age group, qualifications, teaching experience, training in special education and the number of learners per class. This information was vital as, it may have affected the research programme.

7.3 CONCLUSION

Findings, in terms of co-operative learning as an effective instructional strategy for learners with special educational needs in inclusive classrooms, revealed that it addressed the needs of these learners and accommodated the rights of learners with special educational needs in the regular classrooms. Taking this into account, the following could be concluded:

- Co-operative learning is especially an effective instructional strategy because of the following reasons:
 - It provides opportunities for learners to develop and acquire new skills for the twenty first century.
 - It promotes higher academic achievement.
 - It promotes positive race relations.
 - Positive inter-group relationships are fostered.
 - Learners with special educational needs work in a supportive group structure that would assist them in feeling more confident in tackling a task.
 - In view of this, academic achievement improves.
 - Learners learn positive social skills in the group situation.

In terms of the educators' response to the in-service training programme, the findings indicated that empowering educators with effective teaching methods in educating learners with special educational needs in inclusive classrooms, can lead to many positive results. Co-operative learning, as an instructional method, is potentially extremely valuable to assist educators in addressing the diverse needs of learners with special educational needs in inclusive classrooms.

- It is an effective way in which educators can address the needs of learners with special educational needs in inclusive classrooms.
- It focuses not only on learners' academic learning but also on their acquisition of social skills.
- It motivates the learners.
- It is an instructional method that is implemented in a supportive environment by both educators and learners.
- Both educators and learners are constantly learning during the process.

Through the use of co-operative learning the educators learnt more about the learners that would assist them in:

- Planning their lessons;
- Addressing areas in academics that need improvement;
- Addressing areas in social skills that need more attention;

- Providing a profile of the learners for their records; and
- Collecting pertinent information on the learners' learning, progress and development.

These issues are all vitally important and must be considered before the educator plans future lessons. Ellis and Whalen (1990) emphasize the fact that, it is the responsibility of the educators to prepare the lessons, set the lessons, and ensure the monitoring, intervention and evaluation of the product and group process.

Furthermore, the in-service training programme allowed the educators to:

- Acquire the skills and content necessary to implement co-operative learning;
- Understand the need for co-operative learning to be implemented in the South African context. This included creating an awareness that the learners had to acquire certain social skills to operate successfully in the changing society; and
- Gain practical experience in designing lessons, developing material and implementing co-operative learning.

This is especially important for the educators in terms of learners with special educational needs. Traditionally, the focus in the curriculum was knowledge-based as opposed to an outcomes-based curriculum that focuses on knowledge, skills, attitudes, and values. Presently, educators are either unqualified or under-qualified and ill equipped to brave the challenges facing them in the education of learners with special educational needs in an outcomes-based curriculum. With the help of this in-service programme educators, as the most powerful resource in schools and communities, were empowered to educate learners with special educational needs in inclusive classrooms.

In terms of the learners' academic response, the findings indicated that learners with special educational needs had improved in their academic achievement after

co-operative learning lessons were implemented. This can be attributed to the following:

- Learners are more focused on working towards a group goal.
- The learners are supported throughout the lesson by both the educators and the group members.
- Learners are provided with tasks according to their skills.
- Learners learn best from their peers.

In the analysis of the pre- and post-test, the data indicated a difference in the academic achievement of the learners with special educational needs. In view of this, it can be deduced that learners with special educational needs can be serviced effectively in inclusive classrooms.

Learners with special educational needs usually lack the social skills necessary to function with regular peers (Slavin, 1984b). In terms of social skills, the results indicated that, for various reasons, learners had gained positive social skills during the implementation of the co-operative learning lessons. One can attribute this to the following:

- Learners participated with the support from their peers.
- They had been taught some group skills prior to the implementation of the lessons.
- The leader of the group was instrumental in encouraging all learners to participate.
- Learners were encouraged to support and help each other.
- The group was working towards achieving a common goal which meant that each team member was accountable.
- There was a built-in interdependency in the tasks to achieve the ultimate group goal.

In view of these factors, it was clear that learners had acquired new social skills to co-operate in a group through their interaction. Learners did not acquire these skills readily. As indicated in the literature review, basic group skills had to be

taught first before the co-operative lessons could be implemented. This was to ensure that the learners knew what was expected from them in the groups with a teamwork spirit.

One cannot assume that all learners acquired the social skills at the same time. One can only assume that the increased co-operation, participation, concentration and respect for each other, positively influenced by the subsiding noise level, made it possible for learners to gain social skills and to understand and master their own learning at their own pace in a supportive group structure.

Regarding **motivation**, the results indicated that learners were motivated by their group-work. The increase in motivation can be attributed to:

- Frequent support of learners from their peers;
- Achieving group goals;
- Rewarding learners for co-operating;
- More facilitation and encouraging interaction;
- Gaining acceptance from their peers;
- Contribution of new knowledge by learners;
- Motivation of achievement through group evaluation; and
- Group rewards promoting pro-social behaviour.

7.4 RECOMMENDATIONS

The following recommendations should be considered in terms of **educator training**:

- More in-service training opportunities should be created for educators on co-operative learning structure and implementation.
- Universities should include co-operative learning as part of the curriculum in their pre-service teacher training programmes and link it to the implementation of inclusive education.

Recommendations in terms of the implementation of **inclusive education**:

- In-service training on the use of co-operative learning in inclusive education must take place.
- Workshops and seminars must be conducted to explain how co-operative learning benefits and addresses the needs of all learners.
- Strategies to support learners with special educational needs in inclusive classrooms with the help of innovative learning group-work should be developed and implemented.

7.5 LIMITATIONS OF THE STUDY

The research study only includes “coloured” learners. It is not sure whether the results of the study could be generalized or applied to other communities and other racial groups.

Due to the non-random sampling strategy, the research study was limited to sub-economic areas and a prescribed population grouping as identified by the Free State Department of Education. In view of this, the researcher feels that these conditions limited the study to a certain extent. The researcher had no control over the way in which the experimental and control groups were constituted.

This study was only implemented in two schools which is a relatively small sample. It is suggested that further studies should encompass a larger and diverse population sample.

Furthermore, educators should take note that co-operative learning is not the only teaching method that should be used. A variety of methods should be used.

7.6 FINAL COMMENTS

The movement towards an inclusive education system and a change in the curriculum has opened up empowerment opportunities for educators. Since the majority of South African educators have had little or no such opportunities in the previous dispensation, training now provides educators with opportunities for upgrading and empowerment in novel issues in education. With the emergence of new education policies, practice in innovative teaching methods provides educators with opportunities to assist learners in extending their learning in academic, emotional and social areas. This will prepare them to participate in the new socio-political order in South Africa.

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APPENDIX A

**INTERVIEW WITH EDUCATORS ON CO-OPERATIVE
LEARNING PROJECT**

APPENDIX B

**MANUAL FOT RHE
IN-SERVICE PROGRAMME IN
CO-OPERATIVE LEARNING**

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INTRODUCTION TO IN-SERVICE PROGRAMME ON CO-OPERATIVE LEARNING

1. PURPOSE OF THE PROGRAMME

Inclusive education is based on the premise that learners with special educational needs can be included in regular classrooms. Educators in the regular classrooms have in the past not been trained to respond to the needs of learners with special educational needs. The lack of training to equip educators to deal with diversity in the regular classroom, has often left educators frustrated and feeling helpless. This programme focuses on a specific instructional programme method that educators can utilize in the regular classroom to accommodate the needs of both regular and special educational needs. All sections of this programme will aim at building the capacity of educators within an outcomes-based curriculum framework.

By the end of this in-service programme on co-operative learning it is expected that educators should be able to:

- Understand what co-operative learning entails
- Be knowledgeable about diversity in the classroom
- Ensure that the needs of all learners are addressed
- Be able to design and plan co-operative learning lessons for their inclusive classrooms
- Define co-operative learning and its elements
- Define and describe a variety of co-operative learning structures
- Understand the benefits of co-operative learning
- Select co-operative learning groups
- Teach basic social skills
- Apply co-operative learning structures in addressing new issues in the new learning programmes of the curriculum
- Use co-operative learning to address the needs of learners with special educational needs in the regular classes (Kagan, 1994; Johnson and Johnson, 1991).

2. HOW TO USE THE MANUAL

This manual was developed to assist educators/facilitators in conducting an in-service programme on co-operative learning. The manual is divided into teaching sessions and classroom lessons and learning material which to use with lessons in Grade 5 and 6. Each session has a specific outcome which is clearly defined. It is followed by information for the use of facilitator/educator and the specific method in which it will be presented. Time limits are clearly stated and extra activities are outlined for the trainees.

The facilitator follows the procedure as outlined in the manual. It is suggested that the facilitator preview the manual and activities before training is conducted.

This programme continue now with 2.1.

SESSION ONE – 90 MINUTES

SESSION ONE – PART ONE – 30 MINUTES

Session one is divided into two parts. Part one allows for the educators to investigate their own skills and what they bring to the course.

2.1 EDUCATOR EXPECTATIONS AND SKILLS

SPECIFIC OUTCOMES FOR SESSION ONE – PART ONE – 30 MINUTES

Participants should be able to:

- Identify own skills at this stage
- Identify personal expectations from the course
- Develop awareness of the skills and the course expectations of other participants
- Identify specific course priorities and activities for this group

2.2 EXISTING SKILLS OF EDUCATORS

It can be said that educators have been made to believe that they are equipped to teach certain learners. However, all educators can apply skills that they already have in teaching learners. If you think about your role in your school, you will become aware, during this course, that you may develop your knowledge and skills.

List the skills that you use daily in teaching

2.3 EDUCATORS EXPECTATION OF THE COURSE

After reflecting on the skills you now have, think about the additional skills you may require and what your expectations are of this INSET course.

- Turn to the person next to you and discuss what each of you think you would gain from this course
- Now select a partner from another pair and discuss your expectations of the course and also the skills you hope to gain
- Now team up with another group and make a list of the skills you may gain from this course

Part One:
Theoretical Background

SESSION ONE – PART TWO – ONE HOUR**THE HISTORY AND BACKGROUND OF CO-OPERATIVE LEARNING****SPECIFIC OUTCOME**

To be able to understand the history of co-operative learning, where and when it was developed and recognized as a beneficial instructional method.

Part two of the session attempts to answer the following questions:

- What is the history of co-operative learning
- Where did it originate from?
- How did it spread?
- Where did it spread to?
- How and when did it gain more recognition during the twentieth century?

The trainees are given fifteen (15) minutes to read the following information:

- Rationale and
- Historical background

Random questions are asked by the facilitator to determine whether the trainees understand the history and background of co-operative learning.

1.1 RATIONALE

The onset of the twenty first century poses radical shifts in the economy and demographics of South Africa which in turn necessitate the re-examination of our education system. Schools play a vital role in preparing our learners for full participation in our economy and society. Today the economy and society is basically very different from the traditional roles when schools only provided basic skills. Not only are we moving away from providing learners with only basic skills, we now have to contend with providing learners with technology, information-based instruction and interdependency.

Along with the changes in our economic practices, comes the dawning of inclusive education, i.e. learners with special educational needs will be attending regular classrooms. Most of our educators are not prepared for addressing the needs of diverse learners. With the previous political dispensation, the majority of our educators were either unqualified or under-qualified. There were no opportunities available to learn about addressing the needs of learners with special educational needs. Furthermore, South Africa has implemented a new outcomes-based curriculum which is based on the economic, social and academic needs of the new century. This clearly indicates that our educators are

in desperate need of training in novel ways of addressing the education of our learners so that they can fully participate in the changed world of the twenty-first century.

Co-operative learning is a novel way of addressing the needs of all learners so that they can function positively in the twenty-first century. It comes highly recommended by researchers such as Johnson and Johnson (1991), Kagan (1994), Slavin (1990), and Stainback and Stainback (1992). They propose that co-operative learning promotes greater academic achievement, improved self-esteem, improved relationships, improved attitudes, positive inter-group relationships and higher level thinking skills (Molyneux, 1992).

This co-operative learning in-service programme was designed to familiarize educators with innovative instructional methods that would be beneficial for all learners, socially, emotionally or academically, in the mainstream classrooms. Thus, this in-service programme assist educators to empower themselves with a method to service learners with diverse needs in the regular classroom. Furthermore, this in-service program includes a training schedule (activities to follow) as well as lessons/programme for the classroom (see part three).

This in-service program could assist in empowering educators to assist learners to realize critical outcomes of the new outcomes-based curriculum such as:

- research, positive interdependency, working together, co-operating with each other, problem solving, decision making, and positive interaction.
- furthermore learners will be working towards academic goals, learning from each other, and communicating and using language across the curriculum and throughout life (Archer, Msengana, Nyren and Young, 1999).

This co-operative learning in-service programme is based on the following co-operative learning assumptions:

- Co-operative learning structures promotes higher academic achievement as opposed to competitive and individualistic learning structures. Roger Johnson (1981) has conducted 122 achievement related studies and Robert Slavin analyzed 46 controlled research studies which were conducted for an extended length of time in primary and secondary schools. In the studies conducted by Slavin, 63% showed exemplary higher achievement, 4% showed higher achievement while 33% showed no difference. Higher achievement was shown in 89% of the studies which used group rewards for individual accountability.
- When using co-operative learning structures, ethnic relations amongst learners improve significantly. In a study conducted by Slavin (1985) with 1000 learners, learners showed significantly improved ethnic relationships.
- The use of co-operative learning structures assists learners in communicating and interacting with their peers.
- A learner's self-esteem improves when co-operative learning structures are used.
- Learners in co-operative learning classrooms tend to have more intrinsic than extrinsic motivation towards learning/school.

- Experiences in co-operative learning classrooms assist learners in building a higher level of morality. Kagan (1994) feels that experiences in situations where bilateral and multilateral communication prevails probably increases a general sense of interdependency among learners, thus, increasing the learner's understanding of others.

By the end of this in-service co-operative learning programme it is expected that educators should be able to:

- understand what co-operative learning entails
- define co-operative learning and its elements
- define and describe a variety of co-operative learning structures
- understand the benefits of co-operative learning
- select co-operative learning groups
- teach basic social skills
- apply co-operative learning structures in addressing new issues in the new learning programmes of the curriculum
- use co-operative learning to address the needs of learners with special educational needs in the regular classes (Kagan, 1994; Johnson and Johnson, 1991).

Before the presenter conducts the training it is imperative for him/her to familiarize themselves with the contents of this co-operative learning in-service programme. The program is meant to assist educators who wish to empower themselves with novel teaching approaches in addressing the needs of learners with diverse needs in the regular classroom. More and more educators find themselves with learners with diverse needs. The new policies on inclusion and shift in global principles on the rights of learners with special education needs demand that all learners be exposed to a unitary curriculum and be included in their local education centres. This has made it increasingly difficult for educators to address the needs of all learners in their classroom. Therefore, the author deemed it necessary to design this in-service training programme for educators to empower them so that they can address the needs of all learners in their classroom.

Over the past decade co-operative learning has become a much-discussed teaching strategy in education as well as a preferred management style in the corporate world. Educators in primary schools, high schools and even at university level are avidly experimenting with co-operative learning groups to observe whether learners are learning more, better and simply enjoying what they are learning (Ellis and Whalen, 1990).

1.2 INTRODUCTION

Co-operative learning is not such a new idea, in fact, it dates back to the first century when an educator, Quintillion, used this educational approach to demonstrate that learners learn best from their peers (Johnson and Johnson, 1991). Over the last century, much more attention was given to this learning strategy and avid research proved that co-operative learning structures are

valuable to use in education. Researchers such as Slavin (1977, 1979, 1980, 1980b, 1984, 1983b, 1987a), Johnson and Johnson (1991,1994), De Vries and Slavin, (1978), De Vries and Mescon, (1975), Johnson, Johnson and Smith (1991), Kagan (1994), Madden and Slavin (1983a), Okebukola (1984b, 1985,1986a), and many others throughout the United States of America, Canada, Nigeria and elsewhere has proven that the practical use of co-operative learning structures are invaluable in the field of education. It definitely has structures that allow learners opportunities to learn skills that would be beneficial for them in their future endeavors. In viewing the benefits of co-operative learning the researcher has proceeded in developing an in-service and Training in Education (INSET) programme to implement with educators of inclusive classrooms.

In this programme a possible schedule (see Chapter Four in Literature Review) is provided for a framework in training educators in this in-service programme on co-operative learning.. The training sessions are presented in a specific order so that educators can acquire the necessary skills to successfully implement co-operative learning and how to apply it in their classes. Several strategies are used to introduce the topics as well as activities are presented at the end of Part One so that educators participate actively in the process of the training programme. It is assumed that the practical experience would be beneficial for the educators in acquire the necessary skills. Enough time is allowed for the sessions but if more time is required, it could be adjusted.

SESSION TWO – NINETY MINUTES

SPECIFIC OUTCOMES

- To understand the definition of co-operative learning
- To understand the need for co-operative learning in South Africa

1.3 WHAT IS CO-OPERATIVE LEARNING?

Co-operative learning is a teaching strategy that uses small group learning structures. Within the small groups, learners of various achievement levels, race, gender, religion, and ethic groups work together to achieve a common goal. As learners work together, they learn to co-operate as opposed to be competitive. Furthermore, each co-operative learning lesson has an academic and social goal (Kagan, 1994; Johnson and Johnson, 1994).

This session will be in lecture/reading style.

The trainer will explain the meaning of co-operative learning.

- Trainees divide into small groups of 4 to 6.

- They discuss why you think co-operative learning should be used in South Africa.
- They report back in 15 minutes.
- Following this, they return to the group where you will report back to the whole group on your reasons why co-operative learning should be used in South Africa.
- Discuss outcomes-based education in the South African context.
- Whatever the trainees have missed in their reading the trainer will fill in.
- Define co-operative learning in the space below.

Please provide your own definition of co-operative learning.

SESSION THREE – 90 MINITUES

The session addresses two bits of data on co-operative learning, viz. the elements of co-operative learning and the benefits of co-operative learning.

The trainer will attempt to answer the following questions:

- What are the five basic elements of co-operative learning?
- How do these elements benefit the learners?
- Ho do the five basic elements f co-operative learning operate?
- What are the benefits of co-operative learning?
- Why we use co-operative learning?

SPECIFIC OUTCOMES

- **To be able to understand the five (5) basic elements of co-operative learning**
- **Reasons fir using co-operate learning**
- **To be able to appreciate the benefits of co-operative learning**

The trainer divides the learners into small groups. The trainer then lectures, for 30 minutes, on the principles of co-operative learning. After the lecture the trainees are asked specific questions about the five principles of co-operative learning.

- For the next fifteen (15) minutes, the trainees discuss what they think would be the benefit of these principles.

- The trainees report back (about 15 minutes) on their findings
- The trainer then discuss the benefits of co-operative learning for the learners including the learners with special educational needs (15 minutes)
- Benefits that were left out are provided by the trainer (15 minutes)
- It is recommended that the trainees read their notes in their own time – elements of co-operative learning, why we use co-operative learning and the benefits of co-operative learning.
- There are five elements incorporated in co-operative learning. Describe these five elements in your own words below (15 minutes)

1.
2.
3.
4.
5.

- List some of the reasons for using co-operative learning structures.

- If you are to implement co-operative learning structures, what benefits do you see for the learners?

15 minutes for closure.

1.4 ELEMENTS OF CO-OPERATIVE LEARNING

There are five elements incorporated in the planning to achieve the common goals of co-operative learning. These are described as individual accountability, positive interdependence social skills, face-to-face interaction, and social development (Kagan 1994, Johnson and Johnson 1991).

- **Individual Accountability**

Individual accountability is when learners demonstrate that they each contributed to the group activity so that the group achieves the goal. Each learner/participant in the group is given a specific task to complete. At the end of the activity, the group meets to assess all the information gathered by the group members and utilized to complete the activity. Each member's information is viewed as important.

- **Positive Interdependence**

Positive interdependence is when every learner/group member contributes to the activity. Each learner must feel that his or her contribution is essential in the completion of the final activity. Therefore, to be successful, individual assigned tasks for each member must be designed so that their contribution is valuable to complete the final activity.

- **Social Skills**

In this area, basic social skills are identified which learners must learn in order to function successfully within a team. Skills such as listening, how to take turns, how and when to give support, when and how to ask for assistance, understanding each other, accepting the ideas and opinions of others, contributing to the team discussion, how to be a leader of a group, etc. The acquisition of these social skills can build co-operation and trusts among team members while learning how to be effective leaders, make effective decisions and conduct effective conflict resolution. Co-operative learning makes accommodation for the acquisition of the above skills by including it in the goals of the lesson.

- **Face-to-face Interaction**

When co-operative learning structures are applied in a lesson, learners are constantly talking and discussing issues. These discussions provide opportunities for learners to participate while contributing to discussions and debates. They will observe how valuable their contributions can be to achieve a common understanding, their own development such as building confidence, conflict resolutions and gaining trust from the team members.

- **Social Development**

The team must assess their joint social skills. Their strengths and weaknesses must be acknowledged and discussed so that the team can determine which skills they need to improve on. As the process develops, the social process is functioning. The educator is instrumental in assisting the learners/team to identify their joint skills as an effective functioning team and provide guidance in how to proceed in further development.

1.5 REASONS FOR USING COOPERATIVE LEARNING

After extensive and long research on co-operative learning, researchers such as Johnson and Johnson (1993); Kagan (1994); Slavin (1983); etc. propose that learning improves when there is positive interaction among learners. They believe that with positive interaction, learners are highly motivated and display effective communication, higher level thinking, problem solving and social skills as well as improved academic performance. They propose that as learners work in small groups, they develop more in terms of their development of their self esteem, concern for others and academic achievement.

Educators should also prepare the learners and the classroom in such a way that creative learning situations such as research and positive interaction with team members prevail. The educator is encouraged to act as a facilitator by assisting learners in how to co-operate, provide positive support for peers and negotiate and partake in discussions with others.

Many learners already come to school informed about various aspects. However, some of them are identified as having specific information gaps. These information gaps could be bridged through a variety of ways in their learning. We must remember that all learners are inquisitive and eager to learn about unfamiliar issues. It is our responsibility to assist learners in acquiring the knowledge they crave. Thus, we have to create opportunities for learners to broaden out their knowledge, experiences and skills so that learning becomes relative. Within the structures of co-operative learning, many opportunities can be created to satisfy the needs of all learners despite their disabilities or limitations (Slavin, 1978; Johnson *et al.*, 1981)). In more than one way all learners benefit from co-operative learning structures; whether it is social or academic. Slavin and Madden (1983a) conducted a study in which they applied co-operative learning structures to intellectually handicapped and non-handicapped learners in a mainstream class. The results indicated that all learners showed an improvement in their academic achievement as well as enhanced positive social interactions between handicapped and non-handicapped learners.

Presently, with social, economic and political changes our educators are already under great stress to motivate learners. Self-discipline and motivation, in large or over-crowded classes, must at all costs be developed. If cooperative learning structures are implemented, we will find that they provide ample opportunities for learners to experience positive interaction, and learning experiences that would

facilitate learning beyond the scope of the curriculum.

The ability to work with others and to acquire new techniques is strongly influenced by the experiences of the learner's early years. Thus, these experiences provides a basis for educators to build on. Positive attitudes and social skills are consistently emphasized and promoted throughout the first few years of the learner's life and serve as a basis for further development of thinking skills and application in the learner's world. However, it is the quality of learning in the learner's world and their first learning experiences that determines how successful the learner will be at a later stage.

1.6 BENEFITS OF CO-OPERATIVE LEARNING

Researchers indicate substantial benefits in the use of co-operative learning structures. They have observed that using co-operative learning promotes positive cooperative learning teams, social interaction, learner achievement, social roles and skills, improved ethnic, cultural and bi-racial relationships, and is cost effective. Johnson and Johnson (1986) also maintains that other benefits of co-operative learning includes benefits such as on task behaviour, positive attitudes towards school and their work, positive motivation, and the use of higher level thinking skills. It is noted that co-operative learning structures promote both social and academic gains.

- **Social Gains**

We must agree that if learners are to be successful in everyday life in society, they must acquire effective social skills. Not only are social skills taught at home, but also at school. They are not readily acquired, but must also be taught in school. Skills such as listening to others, taking turns, contributing ideas, explaining oneself clearly, encouraging others, and criticizing ideas are important in almost all classroom and playground activities. Furthermore, these skills will also be of benefit to all later in life. No matter what activity learners are eventually involved in, they will be expected to work with others. Ellis and Whalen (1990) indicates that a study conducted by the Center for Public Resources in the United States of America in 1982 indicated that most people lose their jobs because they are unable to work along with co-workers.

Social skills are equally important in personal relationships, during childhood or adulthood. Presently, personal relationships are even more important in South Africa. This is evident with the adoption of a democratic government in 1994, as we are now in a position where all learners, regardless of their race, colour, gender, ethnic origin, etc. have equal access to all schools and must make efforts to get along with each other. Thus, since some learners have previously (before the adoption of a democratic government) been denied the opportunity to integrate freely, they must now learn how to get along with all, regardless of their race, culture, religion or origins. To assist learners in the transformation process, it will be advisable for educators to take the time to teach social skills to the

learners. The benefits that will be observed are that learners will work and socialize more effectively with their peers.

Studies conducted in the United States of America by Slavin (1979; 1983a) and Kagan (1994) demonstrated that when co-operative learning structures were used in the classroom, race relations in the classroom showed remarkable improvement. In fact, Kagan, Zahn, Widaman, Schwarzwald and Tyrell (1985) in their study observed dramatic reductions or elimination's of self-segregation prevailing among learners when cooperative learning structures were used in the classroom.

Before the age of technology, children spent hours creating and playing interactive games. They learnt to wait their turn, stick to the rules, compromised, seeing others point of view and derived pleasure from contributing their ideas. Current social practices have taken a dramatic change. Many learners spend hours in front of the television watching videos, movies or just watching any programme, or playing computer games, some of which need parental guidance. They do not get opportunities to interact with others and are more stimulated or motivated when there is visual interaction. Many educators will note that learners are not all that motivated in class. But, co-operative learning structures provide opportunities for learners to be active with much sensory stimulation. This enhances the learners' motivation to complete their academic work.

Of course, the main reason educators teach social skills is that those learners acquire skills that will assist them in completing their academic work successfully. With co-operative learning, learners benefit academically as well as complete their academic tasks (Kagan, 1994).

- **Academic Achievement**

There are many studies that indicate that when co-operative learning structures are applied in classrooms, learners demonstrate greater academic achievement and cognitive growth. Furthermore, these studies also indicate that co-operative learning promotes higher level thinking among learners and more productivity in school. Johnson, Johnson, Yager and Snider, 1986; Johnson, Johnson, Maruyama, Nelson and Skon, 1986; Yager, Johnson and Johnson, 1985 have done extensive research, and concentrated extensively in the field of academic achievement. Other active researchers in this field with special education learners are Slavin (1980) with studies in Math and Okebukola (1985, 1986a Nigeria) with studies in Science. Slavin and Karweit, 1981; Slavin, 1980c; Slavin and Oickle, 1981; De Vries and Mescon, 1975, 1975b conducted research in Language Studies.

Ellis and Whalen (1990) provide reasons why learners demonstrate an increased academic achievement and cognitive growth. Firstly, they refer to oral rehearsal or thinking out loud. They believe that we need to talk about our ideas/what we are thinking and adjust our thinking as we hear ourselves saying things that do not make sense. It is through talking that we learn what we know and do not

know.

Secondly, in order to increase our achievements, we need to increase our time on task. Educators that have not used co-operative learning structures are often hesitant to test it, but educators who have used cooperative learning indicate that the first thing they usually observe is increased productivity (Ellis and Whalen, 1990). To keep an entire class focused is extremely difficult, especially in these times when class enrollments are greater than usual. However, with active participation, it makes it easier for learners to become focussed when they are working together in smaller groups. It also makes it easier for the educator to identify learners who are distracted and assist them where necessary.

Co-operative learning also promotes controversial ideas. When learners are confronted with ideas that are contrary to their own, they learn to examine their own thinking and adjust if necessary. Also when learners have to explain their ideas to others in the team, they learn to clarify their ideas and impel them to face up to illogical or inconsistent reasoning. However, listening to other members of the team. Explaining themselves individually in a team helps learners to see issues from a different point of view.

- **Higher Order Thinking**

Learners often engage in higher order thinking in co-operative learning activities than they would in whole class or individual activities. Co-operative learning activities involve the application, analysis, synthesis, and an evaluation, all of which promote cognitive stimulation and growth thus producing better achievement.

- **Self-Esteem**

Co-operative learning promotes the development of the learners' self-esteem. Support is provided in their group and other team members ask them to contribute. They come to see themselves as competent learners who are valued by their peers. As the learners experience success and support, their self-esteem is boosted.

- **Motivation**

Motivation is derived from the feeling of academic success and social support. This is very different from the traditional classrooms where learners work independently and for those who are struggling with their learning, it is even more difficult to attain success. Within the co-operative learning groups, learners are each given a task to complete within their capabilities or strengths. The supportiveness from their peers encourages learners and provides them with a supportive environment. This support motivates the learner with the will to succeed and want to work to be successful (Kagan, 1994).

SESSION FOUR – TWO HOURS

SPECIFIC OUTCOMES

Participants should be able to:

- Demonstrate how groups are selected
- Plan and develop and according to steps on page 235 demonstrate a lesson on teaching group skills.

INTRODUCTION

You are probably all aware that in co-operative learning we work in groups. No doubt, these groups must apply the elements of co-operative learning when we set them up. You may be wondering if the learners will cope in these groups. Let's look at a few ways in which we can set up these groups. Now you know why we are in this classroom of learners.

The trainer explains a variety of ways in which we can set up heterogeneous groups. Specific group skills are lectured on to the trainees (30 minutes). The trainees are then to demonstrate this with the class.

- The trainees divide into pairs
- Each pair selects a way in which too elect a group
- The trainee pairs have a chance to discuss the restructuring of the classroom (15 minutes)
- A team is selected by the groups to restructure the class.
- The trainer then conducts a develop and demonstration lesson on a group skill.
- One hour and fifteen minutes is allowed for these activities.
- Closure – discussion and questions – fifteen minutes
- Provide a definition of heterogeneous groups.

- | | |
|--|--|
| | |
|--|--|
- Name five other roles and functions for learners in co-operative learning groups.

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2.	
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3.	
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4.	
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5.	
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CLOSURE

- Sitting in co-operative learning groups, a leader is appointed and proceeds to choose a team building activity to play. The game is then played (15 minutes).

1.7 SELECTING GROUPS AND ROLES

Co-operative learning groups are based on heterogeneous groupings. Heterogeneous teams maximize the potential for positive inter-racial relationships, cross-sex relationships, cross-ability tutoring and face-to-face interaction. Heterogeneous groups are not always the most beneficial grouping to select. There are four types of groupings to select from viz: heterogeneous, random, interest and homogeneous language teams. Heterogeneous teams seem to be the most favourable to use. It is suggested teams be varied in their use.

Groups can vary from two to ten depending on the activity, the co-operative learning structure that is to be used or the size of the class (Kagan, 1994). However, a comfortable size is four. The learners may be selected randomly, or by number e.g. learners are numbered and all the ones are in one group, all the twos in the second group, etc.

• Composition of the Group

The difference between regular group work and co-operative learning groups is in the composition. In regular group work any learner can join a group but, in co-operative learning groups, regardless of the type, the composition must be heterogeneous. This means that different levels of functioning, race, ethnic orientation, sex, religion, culture, etc must be included in each group. This is to optimize learning for all learners. Make sure that learners with special educational needs are also equally distributed in each group. Therefore, the educator must know their learners and conduct the selection of groups. If this is not possible, Kagan (1994) describes simpler ways to select groups such as:

- Rank the learners in order from higher to lower ability
- To select the first group, select one from the top then one from the bottom and assign the learners to a group. Do this until you have reached your number in the group.
- Make sure that each group has a variety of sexes, cultures, etc. to ensure that your groups are heterogeneous
- Repeat this process until you have reached your number of groups.

When learners are divided into two groups, it is easier to group learners of different performance levels. There is a great possibility that learners with the same performance levels do not work well together. This causes unnecessary problems and a negative experience for all learners.

Many activities are designed for learners to work together in groups of three or

four. Each learner must be assigned a specific task. The leader must give clear directions so that all learners are clear on their assigned task. Sometimes there are co-operative learning structures demand learners to work in pairs.

- **Different Roles of Group Members**

All groups must have a leader. It is the educators' responsibility to select a learner with leadership skills as all learners may not have the capability to become a leader; however, other roles could be assigned to them according to the acquisition of skills/or already developed skills. Example:

Roles	Function
Researcher	gathers information
Writer	does all the writing work
Reader	does all the reading
Reporter	reports back to the group
Encourager	encourage learners to participate
Praiser	praises other for their efforts
Helper	helps others
Materials monitor	distributes and collects materials
Mediator	mediates conflicts
Evaluator	evaluates the final product and determines how it could be improved
Time keeper	ensure that members are aware of their time limit
Monitor	ensure that learners stay on task

- **Rotating Group Leaders**

Every team is assigned a leader. However, every learner in the team must have an opportunity to be a leader. Without changing the composition of the group, new group leaders must be assigned throughout the year. This could be done three to five times per year. Learners are thus provided with opportunities to get to know each other or have an opportunity to exercise his/her skills. The educator must use discretion and observe the learners as their leadership skills progress. When you feel the learner has gained leadership skills then make your selection. The educator must take into consideration the behaviour of the learners when composing the groups. Every learner may not necessary become a leader, but other skills may be worked on for further development.

1.8 TEACHING GROUP SKILLS

As stated before, it is advisable to teach learners social skills so that they acquire basic skills in how to work together in a group situation. The skills are divided into three categories: basic group skills, functioning skills and higher order thinking skills.

- **Basic Group Skills**

Basic group skills are those basic skills without which a group cannot function at all. They include skills such as:

- ▶ getting into a group silently and quickly
- ▶ acquiring all equipment and materials before getting into the group
- ▶ remaining with the group until the task is completed
- ▶ talking quietly in the group
- ▶ listening to group members
- ▶ knowing the task you have to complete
- ▶ using appropriate names to address your team members

- **Functioning Skills**

Functioning skills are those skills necessary for the learners to work together. They include:

- ▶ taking turns in the group
- ▶ contributing to group discussions
- ▶ supporting your ideas with evidence
- ▶ asking for assistance when necessary
- ▶ encouraging other group members to participate
- ▶ praising group members where necessary
- ▶ ensure that you understand
- ▶ everyone should be focused

- **Higher Order Thinking Skills**

Higher-order thinking skills are skills that make learners think and understand ideas/material being presented more deeply. They include:

- ▶ providing clarification of the task, material or instructions
- ▶ build on the ideas of other team members
- ▶ restate the ideas of others in your own words
- ▶ coming to an agreement among team members
- ▶ evaluating the group's work
- ▶ criticizing the ideas of other team members – not the person

The number of skills above may be overwhelming, but it is not necessary to address all these skills at the same time. In fact, one may choose only three or four of the above skills per year to address. As the learners progress, choose another skill from the list to teach. When you start to teach social skills, it is advisable to start with the basic group skills so that the learners learn basic skills to work within a group.

- **Steps in Teaching Group Skills**

Whalen and Ellis (1990) have outlined a six-step process to teach group social skills. These steps may apply to any level of skills. The educator and the

complexity of the skill must determine the amount of time you spend on each step. The following provides educators with an example of teaching a group social skill.

Step 1 - Define the skill so that the learners can understand

Be as clear as you can in explaining the activity. E.g. when I say "Get into your groups as quickly and as quietly as you can" then "I mean that you should take your materials that you will need and go to your group without saying a word".

Step 2 - Help learners see the necessity to acquire the skill

The most effective way to explain the need for this skill is to describe what happens when this skill is not in effect.

"Yesterday you spent almost five minutes to get to your groups and be ready for work. This took away five minutes from your working time, thus many of you had to rush to complete your task". You can redo the activity or discuss the issue with the class. E.g. "Why do you think you rushed to complete your task?" What happened when you redid the activity today?"

Step 3 - Have learners describe the skill

Use a chart to note down the description the learners give on the skill on a large sheet and post it in the classroom. Ask the learners to describe what it looks like when they are getting to their worktable quickly and quietly. Now let them describe what it sounds like when they get to their groups quietly and quickly.

Step 4 - Have the learners practice the skill

The educator: "Let's practice getting to your group quickly and quietly. I will watch the time and see how quickly you can do it."

Step 5 - Discuss and reinforce the learners efforts

Disclose the amount of time as learners progress. E.g. "That took only three minutes today. Or that took only one minute today". Praise the learners for their effort e.g. "That was a big improvement" or for those who are noisy " I think you concentrated more on speed than on being quiet".

Step 6 - Have learners practice the skill as often as possible or at various times and opportunities during class time

Remind the learners whenever you see that they may have forgotten to do it. There are many opportunities for learners to be reminded e.g. for other lesson in group work or in sport or in physical education.

- **Evaluating Group Skills**

Learners know what we as educator's value by what we reinforce. You should always evaluate, through observation, and reinforce learners in their social skills. For example keep a chart and give the learners a star when they apply the social skills throughout the day

1.9 TEAM BUILDING ACTIVITIES

Before you begin to implement cooperative learning, it is important to build a team spirit among the team members. This is to ensure that the learners will work together. There are many activities that could be used to build teams. Here are a few examples:

- **All about me**

All about me is an activity in which you ask several questions so that you can get to know the learners in your group. The following are a few questions that you could ask:

- ▶ **What is your name?**

Members of the team take turns in asking each other their names. Possible question that could be asked is "How did you get your name? Are there others in your family with the same name? Do you like your name? Why/Why not? What other name would you have liked? Why? Do you have a pet/nickname? How did you get that pet/nickname?" etc.

- ▶ **Where have you traveled in the country or world?**

Members of the team ask each other if they have ever been outside their home town/province/country. The learner describes where he/she has been and relates their experiences.

► **What would you like to be when you are an adult?**

Learners ask each other what career path they would like to follow when they are adults and why. What grade do you have to attain to follow that career path and what type of training or education do you need to fulfill your dream.

► **Who would you like to be?**

If you have a choice to be someone else, who would that person be or what character in a story would you like to be?

• **Turn and Toss**

There are a variety of ways in which you can approach this activity. One method is as follows:

Step 1 - Learners learn each other's names

Each learner crumples a piece of paper. He/she selects a learner and tosses the paper to that learner. As he/she does this he/she says, "Hello, my name is Jack. What is your name?" The person catches the paper and says, "Hello, my name is Kate" This person then eyes another person and follows the same procedure until each member of the team/class has had a turn.

Step 2 - Friends use each other's names

After step 1, the learners start at the beginning again and use each other's names e.g. "Pleased to meet you Jack" and throws the paper to the member of the class/team.

Step 3 - Members ask questions about each other

Team members ask questions about each other.

• **Team Projects**

Members of the team make a list of their likes and dislikes. They compare it with each other and discuss it. The following are a few ways in which this could be accomplished:

► **What are my Characteristics?**

Members of the team write a description of one of the team members. All the descriptions are placed in a container and each member will select a paper with a description. You have to guess who that person is.

► **Team Names**

Each team discusses possible names for their team. Each member must participate to come to a common agreement.

► **Team Hats with a Logo**

The team discusses possible unique hats for their team as well as a logo. They proceed to design a hat then make them.

SESSION FIVE – TWO HOURS

This session will focus on the various co-operative learning structures. Several co-operative learning structures are presented in the notes. We will view two videos on two specific co-operative learning structures in practice.

SPECIFIC OUTCOMES

Participants will be able to:

- Describe a few examples of co-operative learning
- Understand the use of various structures for specific learning areas

INTRODUCTION

There are a variety of co-operative learning structures. Some co-operative learning structures are better to use for specific learning areas.

- The trainees view a video (by Kagan) on the co-operative learning structure of “Co-op – Co-op” in an integrated study (40 minutes)
- Discuss “Co-op Co-op” in your groups (10 minutes)
- Report back (15 minutes)
- The trainees view a video on “Numbered Head” (by Kagan) (30 minutes)
- The whole class discuss the benefits of this structure and the various learning areas in which they can be used (20 minutes)
- The team selects a co-operative learning and teaching approach and prepares to describe it orally

- Closure (5 minutes) – It is suggested that the trainees read the notes on the various structures in this manual (2 hours).

1.10 Co-operative Learning and Teaching Approaches

- **Jigsaw**

Jigsaw is a co-operative learning structure that was first used by high schools and colleges. Each co-operative learning group member becomes an expert on a specific topic related to a theme through a research procedure. The research material is discussed with members of the other teams that conducts research on the same topic. Finally they return to their original group and present the material to members of their team.

Step 1. - Establish the co-operative learning groups and present the material/task

Every co-operative learning group is presented with the same theme with the same number of tasks. Each member of the co-operative learning group is expected to conduct research on a specific topic.

Step 2. - Research, study, preparation for presentation by expert groups

Each member of the team conducts research on the specific topic presented to him or her. They meet with other team members who have the same topic to research. They exchange information and learn from each other. They are then considered experts on that specific topic. These members also prepare and plan how they will present the material to their specific groups.

Step 3. - Return to original group to present and determine whether the group understands the material presented

The members return to their original team. Each member of the team takes a turn to present their material to the group. Questions may be asked to determine whether each member understands the material.

Step 4. - Individual and group accountability

The group is responsible for each member to understand the material. Questions are asked and the different topics may be discussed to demonstrate their knowledge of the individual topics and how it relates to the theme.

- **Co-op, Co-op**

Co-op, Co-op is a co-operative learning structure that follows a specific order.

Step 1 – Learner-centered class discussion

The educator introduces the learners to a specific theme/topic. They are encouraged to participate in a class discussion and present their ideas on the topic/theme. The educator must motivate the learners so that he/she can establish the interests of the learners.

Step 2 - Establishing co-operative learning groups

If the groups have been established on a former occasion, then this step is not necessary. If the groups are to be established on this occasion. (refer to the section 1.7). Be careful with the process. Make sure that you establish heterogeneous groups by including different genders, races, levels of performance, etc. This is to avoid problems such as racism and negative social skills.

Step 3 - Team building and co-operative skill development

Team building and co-operative skill development is acquired through specific activities (refer to section 1.9). These activities may assist the teams in developing their own team identity and build skills, especially in communication, conflict resolution, how to listen and how to ask relevant questions. In each co-operative learning group this process must take place.

Step 4 - Choice of team topics

After the team has completed team-building activities they begin to make a choice of topic concerning the theme presented by the educator, e.g. if the educator together with the class has chosen the topic "Countries around the world", the team may want to choose a specific country they would like to study. The educator urges the learners to choose a topic that would be relevant and useful to them. Team leaders are encouraged to discuss a variety of topics before making the final choice.

Step 5 - Choice of a mini-topic

In this step the class is expected to research and read over material about their topic. The topic is then re-discussed to identify various areas that may be of interest for specific research by the group. E.g. Japan – culture, climate, traditions, etc. Ensure that areas are chosen whereby all members of the team

can conduct research. It is important that the educator provides guidance in terms of the choice of the mini-topics. Each individual's contributions are important in making the final decision.

It is only natural and acceptable that certain team leaders will make a bigger contribution than others. We must remember that all members do not have the same skills, experiences and abilities. As long as they all participate and contribute constructively to the best of their ability. This is possible through:

- allowing learners to evaluate the contributions of each team member on the basis of his/her capabilities
- individual samples of work are given to other members and
- the educator is to supervise the contributions of all team members

As soon as the topic is re-divided among all team members, each member of the team must assume his/her responsibility in completing their specific task. After the research has been conducted, each member must make his or her contributions to a quality team effort.

Step 6 - Preparation of the mini-topic

During this step learners prepare their information on the mini-topic for presentation. They review their information and gather all relevant data. The research could be conducted in various ways such as research in the library/class, library/books available in the class from the library/ tapes etc, view videos, interviews with relevant people, listen to television programs, the use of internet, pictures, experiments, etc. Each group member is responsible to present their information in whichever way they choose.

Step 7 - Presentation of the mini-topic

Individual members conduct their presentation to their group. The learners must consider the presentation as formal i.e. the group decides on a time span in which every member will do a presentation. A group discussion follows the presentation. Questions may be asked so that all learners understand the contents of the presentation.

Each member of the team is like a piece of the puzzle in the presentation. In the discussion constant interaction takes place among the team members. In the presentation of the mini-topic, each team member performs a specific function e.g. one could do the reading, one can criticize, one could provide assistance, etc. Unanswered questions are discussed. Teamwork then becomes an important aspect.

Step 8 - Preparation for the group presentation

The educator must explain this step very clearly to the class so that they

understand what is expected from them. They must know ways in which they could conduct their presentation e.g. practical demonstrations, radio shows, puppet show, plays, etc.

Step 9 - Group presentations

The groups decide how they would like to present their information and what material they would need. Members of the team collect their material, decide on their roles in the presentation and ensure the organization of the class is ready for their presentation. Remember that this is a team effort and each must pull his/her weight to add to the success of this presentation. The following factors must be taken into consideration by the team: the time available for the presentation, the space available in the class, etc. One of the team members could act as the time keeper/reminder. As soon as one member's time has expired, the timekeeper could raise a card.

After the presentation, it is open time for questions and/or a discussion. The team members answer questions. Following the question period, it is important that the educator gives feedback to the group. The other teams could also give feedback.

Step 10 - Reflection and evaluation

Learners are requested to discuss social skills that were involved during the activities. This could be facilitated through asking questions e.g "Was the activity interesting to you?" Or "Did all your team members participate?"

An evaluation sheet is completed on a group evaluation sheet to evaluate the learning that has taken place . Evaluation could be conducted on three levels:

- Class evaluation
- Individual contributions could be evaluated by team members and
- Written evaluation by the educator.

- **Dramatization**

This could take the form of an oral dramatization of a story. All team members are given a role to play as well as oral presentations. The actual words of the story could be used or the learners could retell the story in their own words.

- **Group Discussions**

Group discussions take place when a part of the work is discussed as a team. The topic is determined by the educator, the team does the discussion and makes decisions accordingly. As soon as they come to an agreement the task is completed. This is then presented to the class.

- **Free Writing**

The educator presents a topic to the class. The learners then proceed to write about their own experiences about the specific topic. Take note! The experiences must relate to the topic.

- **Round Robin/Round Table**

These structures are a very important part in co-operative learning. In “Round Robin” the team sits around a table. Each member of the team is given a different colour pen/pencil/crayon. One team member writes down a fact or an idea about a specific topic on a sheet of paper. The paper is passed to the next member to do the same until all members around the table have had a turn to add his/her ideas or facts. It is important for each team member to write his/her idea/fact in a different colour so that the educator monitors the inputs from all the learners. These ideas are then presented to the class.

In “Round Table” the same principle is applied but all learners contribute orally in a discussion. It is important that the educator monitor the learner’s participation.

- **Group Investigation**

Phase One – Preparation

Determining the theme, sub-themes and groups to do the research

Step 1 - Presentation of the theme

- Choose an interesting subject that would motivate learners. Present the theme as a question to stimulate the learners’ interest e.g “Which country would you like to visit?” “Why?”.
- Encourage the learners to examine possible resources to use to locate information.

Step 2 - Declaring the theme

The learners draw up a list of questions related to the topic on which research can be conducted. This task can be completed in various ways viz.:

- General class participation - learners write down questions that they would like to conduct research on a given topic
- Small groups - members in small groups of four write down questions and how they can conduct research on the given topic
- Working individually - individual learners set up their own questions

regarding the given topic. These questions are then discussed in the whole group.

Step 3 - Determine the categories of the given topic

All the questions set up are presented to the entire class. The learners are guided to divide these questions into categories regarding the theme i.e. sub-topics/units.

Step 4 - Establish research groups

The educator assigns the learners to heterogeneous groups (refer to 1.7) Following this, each group selects a sub-topic for research.

Phase Two – Planning

Group planning for research

Step 1 - Declaring the task

Each research group discusses their sub-topic and determines how and what they will research. Specific questions are asked and designed about various aspects for possible research on the sub-topic.

Step 2 - Develop a plan for research

Each group develops their own strategy how to conduct their research.

Determine:

- which aspects of the sub-topic is to be researched by each individual in the team
- a time frame with dates/time when the research must be completed
- which and what type of resources will be used to conduct the research
- and design a working plan in how the research will be done
- use a work plan sheet to complete before conducting the research
- which member of the team will complete which task

Phase Three – Research

Conducting the investigation

Step 1 - Daily plan

The members of all the teams complete a daily plan sheet to conduct research

Step 2 - Research the sub-topics

Members of the teams gather information and resources to use in their sub-topic.

Step 3 - Analyze and evaluate the information of all team members

Leaders of the group assemble all the information gathered by the group members. The group discusses the information. During the discussion members of the team analyze the material and then determine which information will be of value to them.

Step 4 - Application of information

Group members use the information to answer the research question posed by the educator.

Phase Four – Organization

Preparing for the final report

Step 1 - Choose a way to present your report

The educator along with individual groups discusses how the group will present the research material. Specific ways include:

- displays
- learning centers
- a radio show
- dramatization
- models
- written reports etc.

Step 2 - Planning the report presentation

- The group discuss their individual functions in the presentation
- The team design a form on which they will write a final report for the educator
- The group complete a report

Step 3 - Writing the report

The team completes their individual parts of the presentation i.e. material that they would need for their final presentation.

Phase Five – Presentation

Presentation of the final report

Step 1 - Presentation

Each team conducts a presentation according to a schedule that was designed by the educator.

Step 2 - Discussion of the presentation

Members of other teams give their oral perceptions of the presentation.

Phase Six – Evaluation of the research process and the product

Step 1 - Determine the features of the evaluation

The educator and the class determine the features of the evaluation for the group presentation so that the following questions are answered:

- What is it we are looking for to determine that this research was a valuable experience?
- What is it we are looking for in the presentation and what do we anticipate as an end product?

Step 2 - Clarify the elements of the evaluation

To clarify the elements of the evaluation, the following may be considered:

- The role of both the learner and the educator
- Format for summarizing the evaluation
- The difference between the evaluation of the process and the product
- The relationship between individual and group marks
- How and why anecdotal and numerical evaluation are used

Step 3 - How the Learners would be Tested for understanding

- Ensure right from the beginning that the learners understand how they will be evaluated
- Each learner then completes an evaluation sheet (refer to Part Four, Appendixes D, H, M, O, and R) .

- **Graffiti**

Graffiti is a co-operative learning structure that encourages cognitive stimulation. Each co-operative learning group of 3 - 4 is given a sheet of paper and a set of coloured pencils/markers. Each group is given a set of questions, themes, topics, expressions, pictures, etc. Within a given time, each group must write down on the sheet of paper their ideas, expressions, etc regarding the topic/theme. Each team member has a turn to note his/her ideas, comments, etc

Step 1 Each group writes their "graffiti" on a sheet of paper. Each member is given one minute to make his/her contribution.

Step 2 Once all team members have noted their comments on the sheet of paper, it is sent to the next group.

Step 3 The sheets of papers are sent around systematically until it reaches its original starting point.

Step 4 Each group reads, discusses, summarizes and presents their ideas about the topic/theme to the class.

- **Think, Pair, Share**

Think, pair, share is a co-operative learning structure where learners think about an idea, idiom, event, etc. Learners are then paired after which the two learners discuss and share their ideas. Their ideas are then presented to the class.

This is a relatively easy procedure to implement. The benefit is that learners participate in discussions. Kagan (1990) designed this structure.

- **Formulate, Share, Listen and Form**

Johnson and Johnson (1990) created this deviation from the above structure. The structure is almost the same as "Think, Pair and Share" except for some differences. Learners design questions then share it with each other in groups of two. Through discussion, the learners come to an agreement on solutions to the question. Research on this structure indicates that the learner's ability and thinking skills are developed with the use of this structure.

These are only examples of a few co-operative learning structures. There are many more co-operative learning structures available.

1.11 HINTS FOR SUCCESSFUL CO-OPERATIVE LEARNING

The following are hints for the educator to promote co-operative learning for success:

- Start off with a small team to try out co-operative learning structures
- Use small groups as much as possible to increase interactive experiences
- Identify only five or six social skills to work on otherwise it is too overwhelming for the learners
- Avoid competitive activities. Co-operative learning is supposed to promote teamwork and co-operation
- Emphasize listening skills through activities during class discussions
- Carefully plan the time for learners to complete their activities. It is best to give more than too little time
- The task must be clearly explained to the learners so that they understand the activity before they start
- Ensure that it is not only a product that is required at the end of a lesson
- It is recommended that learners check each other's work in the class.
- As a facilitator, you must monitor the learners at all times. Do not choose sides but rather make suggestions to assist the learner or groups
- After each lesson, allow the groups to summarize what they have learnt
- Try and give the learners a reward for their performance e.g. certificates.

This is added information that the trainees can read on their own.

Part Two:

How to use the programme:

Part 1: Educators

SESSION SIX – 90 MINUTES

This session focused on the role of the educators.

SPECIFIC OUTCOMES

The participant will be able to:

- Understand how to determine a social and academic outcome
- Understand the criteria for success
- How to implement/monitor and intervene during a co-operative learning lesson.
- Understand his/her role in a co-operative learning lesson.

INTRODUCTION

A critical part of co-operative learning lessons is the role of the educator. In view of this, it is necessary for the educator to understand his/her new role. Prior to co-operative learning, the educator would stand in front of the class and lecture or show the learners what to do. Now the role of the educator has changed drastically. The role of the educator starts right at the onset of the decision to conduct a co-operative learning lesson.

- Trainees divide in their groups and discuss what they think the role of the educator is (15 minutes)
- Procedure of session
- Trainees report back to the whole class (15 minutes)
- The trainer discusses the role of the educator with the trainees (20 minutes)
- Review of the notes on the role of the educator with the trainees (25 minutes)
- Questions and closure (15 minutes)

2.1 PLANNING THE TEACHING AND LEARNING PROGRAMME

In planning the lesson there are nine easy steps which we could follow. The following is a step by step account in which we can plan the programme:

Step One

During this step we have to determine the level of our learners. This could be determined through simply looking at the National Qualifications Framework. The

following is a simplistic version of the National Qualification Framework:

Band	Grades	Phases
General Education and Training	0/R	Foundation Phase
	1	
	2	
	3	Intermediate Phase
	4	
	5	
	6	Senior Phase
	7	
	8	
9		
General Education and Training Certificate		
Further Education and Training	10	Further Education and Training
	11	
	12	

The groups of grades have been divided into organizational and curriculum phases. As observed above, the first phase is called the Foundation Phase (Grades 0-3). In the old South African dispensation this used to be referred to as the Junior Primary division.

The second Phase ranges from Grades 4-6. This phase is referred to as the Intermediate Phase. In the old curriculum framework, this phase used to be known as the Senior Primary division.

The third phase is the Senior phase which stretches over grades 7-9. This is where we find our older learners. The final phase ranges from grades 10-12. These two phases are usually located in the secondary/high schools.

Step Two

In this step the educator has to determine which learning programme will be used. Each phase has its own learning programmes. These are compulsory at this stage.

Step Three

Determine which Phase Organiser you would use, E.g. this phase organiser assists in keeping focus in our lessons. The following is a breakdown of the Learning Programme and Phase Organisers for specific phase:

Foundation Phase		
Learning Programmes	Phase Organisers	Program Organisers
1. Literacy 2. Numeracy 3. Life Skills All eight learning areas are incorporated in the three learning programmes	Personal Development	Educator's choice e.g. Fables
	Health and Safety	
	Society	
	Environment	
	Entrepreneurship	
	Communication in our lives	

Intermediate Phase		
Learning Programmes	Phase Organisers	Programme Organisers
1. Language, Literacy and Communication 2. Mathematical Literacy Mathematics and Mathematical Sciences 3. Natural Sciences and Technology 4. Human, Social, Economic and Management Sciences 5. Art, Culture and Life Orientation	The learner and personal Development.	Educator's choice e.g. Transport
	The learner in the environment.	
	The learner as communicator.	
	The learner as enquirer.	
	The learner as active creative participant.	

The Senior Phase		
Learning Programmes	Phase Organisers	Programme Organisers
1. Language, Literacy and Communication 2. Mathematical Literacy, Mathematics and Mathematical Sciences 3. Natural Sciences 4. Technology 5. Human and Social Sciences 6. Economic and Management Sciences 7. Art and Culture 8. Life Orientation	Personal development and empowerment.	Educator's choice e.g. The Universe
	Environment	
	Culture and Society	
	Communication	
	Economic and Development	

At the time of writing this thesis, the curriculum was under review thus, the above information may change over time.

Step Four

During this step, the educator determine which Programme Organiser he/she would like to use. The educators has a choice of theme which they would like to use to meet their outcomes. For example, for the prepared lessons, the intermediate phase was selected. The breakdown is as follows:

Intermediate Phase			
Grade	Learning Programme	Phase Organiser	Programme Organiser
4	An integrated Language, Literacy and Communication Programme	The learner as communicator	Fables
5		The learner as enquirer	Transport
6		The learner in the environment	The Universe

Step Five

During this stage the educators selects the outcomes which they would like to address across the learning areas. The specific outcomes must be well consulted and read so that the educators address the necessary Phase Organiser e.g. the learner as communicator

Step Six

Performance indicators are devised. The performance indicators assist us in planning the actual stages our lesson will go through to teach the outcome.

Step Seven

In this step we determine which learning/teaching strategy we will use. For this thesis co-operative learning is the choice of learning facilitating strategies.

Step Eight

This is when the educators determine which learning activities they will have to design to realise the outcomes.

Step Nine

Finally the educators must decide how they will monitor the learners' progress. Thus, assessment criteria must be determined. Link the assessment criteria with the outcomes (Free State Department of Education, 2000).

Once all this planning has been conducted, the educators must know how to apply the learning/teaching strategy. The educator's role in planning and implementing co-operative learning lessons is the first issue to be addressed. The role of the educator in co-operative learning as part the of INSET programme could be described in four phases. These include:

- Making organisational decisions before the lesson begins
- Designing the lesson for the class
- Implementing, Monitoring and intervening during group-work and
- Evaluating the product and process.

The following is a more detailed description of the role of the educator and how to proceed after the initial planning stage of the programme.

2.2 THE ROLE OF THE EDUCATOR IN CO-OPERATIVE

The following are four phases in the role of the educator in co-operative learning as part of the in-service and training in education programme (INSET). The first phase is making decisions prior to the onset of the lesson.

Phase One

Making Organizational Decisions before the Lesson begins

Step 1 Determining the Social and Academic Outcomes

When you use co-operative learning structures, you must concentrate on at least, two outcomes per lesson: a social and an academic outcome.

- The academic outcome focuses on the cognitive content and the skill that is to be learnt.
- The social outcome focuses on the interactive skills that are stressed and exercised.

Step 2 Determining the Size of the Group

The correct size of the group must be determined in order to attain the academic and social outcomes. It is therefore necessary to consider the following points:

- Working in pairs promotes interaction. It is not possible to be excluded when you work in pairs. It is advisable to start working in pairs or in threes

- to promote the interaction.
- Larger groups such as three's or four's are much more liable to promote success when diversity in thinking, expertise and a large amount of skills are involved.
 - Larger groups demands more skilled members to ensure positive interaction among group members.
 - The type of activity and resources may dictate the size of the group.
 - Shorter activities demands smaller groups to ensure maximum involvement.

Step 3 Selecting the Group Members

It is important to select heterogeneous groups to derive the most learning benefits from the group. It is advisable to take in consideration the following points:

- Heterogeneous groups are mixed ability, sex, gender, race, ethnic orientation, learning styles ability, special needs, etc. groupings.
- When an educator selects the group, it is usually a preferable mix. Only the educator knows the learners best. In selecting the groups, the educator can put together a group that will be supportive for the special needs and the introvert learners.
- In order to keep a group together demands careful observation from the educator. The groups should be kept together long enough for the team to be successful.

Step 4 Classroom Organization

Tables are the best types of furniture to use. Learners can sit around the table and conduct discussions. If tables are not available, desks can be arranged in such a way to promote face-to-face interaction. The organization of the room must allow for the learners to have easy access to materials as well as enough space between groups.

Step 5 Preparing the Material

All necessary materials to be used throughout the lesson must be prepared by the educator.

<p style="text-align: center;">Phase Two</p> <p style="text-align: center;">Designing the Lesson for the Class</p>
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The second phase focuses on the designing of the lessons for the class.

Step 1 Structuring Positive Interdependence

Success in accomplishing goals is highly dependent on learners working together. When support from other members of a team is available, learners feel the sense of togetherness and believe they need one another. This means that the team must have a goal and establish a shared responsibility among their members, thus interdependency. Example, when team members work together towards a common goal and contribute in a meaningful way, they feel committed to achieve and be successful.

Step 2 Clarifying the Academic Outcome

It is the responsibility of the educator to ensure that the learners are clear on what the academic task is all about. The educator must find various ways to clarify the task even if he/she has to demonstrate with a practical model. Relevant experiences could be used as examples whether it is past, present or possible future experiences. A smooth transition into the groups must be facilitated by assisting the learners in understanding the assignment before the learners commence the task.

Step 3 Understanding the Criteria for Success

The groups must understand what the criteria are for success. Learners and the educator can discuss and agree to what they view as success so that they have a basis by which they will be evaluated. Instructions must be clear so those learners know what they have to do to be successful. For example:

Vague directions	Explicit directions
Simply complete the task.	Complete the team map in 30 minutes
Answer correctly.	A score of 90 -100 will be an "A".
Give a number of reasons why ...	Give at least 10 reasons why ...
You must use positive comments	You must be able to tell me how you used positive comments.

Step 4 Structuring Individual Accountability

Like positive interdependence, individual accountability is built into the lesson. Learners must know ahead of time that they will be accountable to contribute to the group task/social skills. This raises their concern and subsequently their interaction. In order to ensure that individual accountability is in place, the educator could call randomly on individuals to answer for the team or the team could sign a contract indicating that everyone participated and mastered the

material/content during group work.

Step 5 Declaring the Desired Social Behaviour

The educator and the learners must discuss what the expected social behaviour would be during the lesson. Be very specific of the desired behaviours as this assists the learners to actually practice these behaviours during the lesson. It is also important for the learners to understand why it is important for them to concentrate on those specific behaviours. This ensures greater success among the learners. Meaningful behaviour facilitates greater effective processing of the use of the skill by the learner.

Phase Three

Implementing, monitoring and intervening during Group-work

This phase concentrates on the implementation, monitoring and intervention during the co-operative learning group work.

Step 1 Monitoring the Learners' Behaviour

While the teams are busy working on their tasks, the educator must move around in the class to observe the progress of the learners within the team situation. This enables the educator to decide when to intervene at the appropriate time and guide the groups or suggest options in social and academic progress. The educator could make notes on the interaction and progress of individual learners.

Step 2 Intervening during Group-work

Intervention by the educator may be necessary to provide assistance or teach collaborative skills as necessary.

- When learners are in need of assistance in task completion, they may need assistance in clarifying directions or answering questions. When providing assistance, try to teach upon the skills and expertise of the group members as much as possible. It helps to guide the team members in how to exploit their skills and other resources. For example, if the learner asks a question, redirect the question to the team members and solicit their assistance for a response. (Bennett, Rollheiser-Bennett, and Stevahn, 1991),
- Teaching collaborative skills may occur when a group is not functioning effectively as a team. If this occurs, it may be appropriate to assist the learners by teaching them the necessary skills so that it may be meaningful to them. For example, if one team member is not participating, all team members must learn the skill in how to get all learners involved.

Intervention is beneficial as the educator could use the opportunity to assist the learners in how to do problem solving as a team. However, although intervention is needed from time to time, it is advisable only to intervene when necessary.

Phase Four

Evaluating the Product and Group Process

Phase four provides closure to the lessons. To complete the lesson, learners need to have opportunities to summarize and reflect on their learning. It is the role of the educators to facilitate such opportunities. This closure provides the learners and the educator to reflect on major points of the lesson, ask questions or generate new ideas. This phase includes both evaluations of the academic work and the social skills.

- Evaluating the academic goals provides feedback to the educator and the learner on how well they have progressed. They find out how well they have completed the task and what they have learnt. This can be done in ways such as asking questions, completing evaluation forms, group/class quizzes, group evaluation etc.
- Evaluating the social goals involves the reflecting on how well the group worked together and participated. They should determine what went well in the group and where they can improve.

Reflecting on these two issues is paramount to co-operative learning.

SESSION SEVEN – ONE HOUR

In order to design co-operative learning lessons, we need to reflect on the role of the educator, outcomes-based education and assessment procedures. Let's refresh our memory by reviewing how we recall from the previous session.

- The trainer ask pertinent questions related to the role of the educator (5 minutes)
- Trainees discuss the role of the educator in their groups (10 minutes)
- They internalize how they will get started in the whole process of setting up co-operative learning lessons (15 minutes)
- The class discuss outcomes-based education in the South-African context (refer to 39 – 42 of session 6) (15 minutes)
- The trainer and trainees discuss assessment procedures and refer to the reading on assessment (15 minutes)
- Write a social and academic outcome you would like to address in your class.

Social:
Academic:

- Reflecting on your present classroom furniture. Describe how you would rearrange your classroom to reflect a co-operative learning group classroom (orally).
- Think of some of the learners with special educational needs in your classroom. Select a learner and describe how you would intervene to assist the learner with his/her learning in co-operative learning groups.

- | |
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| |
- At this point the educators select a theme, social and academic outcomes and co-operative learning structure. They then proceed to design a lesson in co-operative learning.

- Devise two assessment sheets to evaluate the learners' academic and social goal.

- Design a portfolio in which to keep the work of the learners.

The success of any programme is dependent on careful and effective planning. In planning co-operative learning lessons one has to concentrate on the underlying principles of co-operative learning and whether the five basic elements have been included in the planning. Furthermore, we have to be sure that the programme coincides with the outcomes-based curriculum.

2.3 WAYS TO CONDUCT ASSESSMENT

Assessment is probably the most important part of any programme. The assessment procedures provide feedback to the educator and the learners. The feedback indicates whether the presentation of the lesson was beneficial to the learner or not. There are a variety of ways in which assessment can be conducted:

- Educators observe, both directly and indirectly, the learners' behavior during a range of learning experiences
- Educators create a cumulative file on each learner to assess the learners' progress and achievement over time
- Collection of the learners' experiences and needs learnt through the family contact and the school records
- On-going basis recordings on the learners' response to a program
- A collection of individual progress and achievement of the learners'

- expected outcomes on tests, and authentic assessment procedures
- Self-assessment tasks
- Tests on the learning program
- Surveys
- Assignments
- Peer assessment sheets
- Group assessment sheets
- Class individual/group presentations
- Oral tests
- Educator/learner or learner/learner conference
- Interviews
- Checklists

- **Framework for Assessment**

There are three types of assessment procedures: diagnostic, formative and summative assessment.

Diagnostic Assessment

This type of assessment is used prior to teaching or at the beginning of the learning program. Specific purpose are as follows:

- To provide the educator with planning information
- A pre-test is a common example of a diagnostic assessment
- Both formal and informal diagnostic assessments could provide complete understanding of the learners' interest in learning programmes, prior knowledge, pre-skills, pre-attitudes and values.

Formative Assessment

- Formative assessment is conducted continually during the learning process to determine whether the outcomes are being achieved
- Is the foundation of further planning and used to encourage learners to reflect on their own progress. It has the following specific purposes:

Teacher-conducted assessment

- To measure individual and class growth in skills, effort and attitudes
- To provide information to both the educator and the learners on progress towards the expected outcomes
- To determine which skills are at expected levels and which need improvement
- To assess the effectiveness of the program in terms of content, pace, sequence and methods
- To provide cumulative information to form part of the summative

assessment

Learner's self-assessment

- Develop the learners' sense of responsibility for his/her own learning
- To contribute to the awareness of outcomes of the learning program
- To assist learners to conduct self-evaluation
- To inform the educator of the learners reaction to the learning program

Learner's peer evaluation

- To provide learners with feedback of their work, other than the educator
- To provide opportunities for the learners to compare their work with other learners
- To provide more records to add to the summative evaluation

Summative Assessment

Summative assessments are conducted at the end of a lesson or learning programme. It has the following specific purposes:

- To assess what was learnt
- Offer opportunities for learners to demonstrate what they have learnt
- Measure learner outcomes
- Alternative summative assessments could take the form of projects, assignments, and performance tasks which could be added to a portfolio
- To report to parents, learners and the principal
- To measure the effectiveness of the program and overall performance of learners

A chart provides us with comparisons between diagnostic, formative and summative assessment tools.

Diagnostic		Formative		Summative	
Formal	Informal	Formal	Informal	Formal	Informal
Standardized Tests	Observations	Checklists	Journals	Inquiry	Discussions
Pre-tests	Discussions	Quizzes	Observation	Work projects	Observations
Placement tests	Journals	Questions-answers	Questions-answers	Standardized tests	Work projects
Inquiry		Assignments	Learner Comments	Classroom Tests	Learner Feedback
Questionnaires		<ul style="list-style-type: none"> • Standardized Tests • Classroom Tests • Portfolios • Performance tasks • Interviews 	Assignments	<ul style="list-style-type: none"> • Interviews • Portfolios • Performance tasks 	

(Board of Education for the City of Etobicoke, 1987)

- **Characteristics of an Effective Assessment Programme**

In designing or selecting assessment tools, we need to be very selective. The following is a guide for educators to refer to when they select an assessment program.

Characteristic	Description
1. There must be a link between the outcome and the assessment tool	<ul style="list-style-type: none"> • The activity, test or assignment must assess the learners' success in meeting the expected outcome e.g. does the activity assess content if the outcome expectation focuses on the ability to analyze, interpret and apply information.
2. There must be a link between the learning process and the assessment strategies.	<ul style="list-style-type: none"> • The strategies used to assess learners' performance and success tell the learners very clearly how, and what they are to know. • The assessment approach tells the learner what is really important about the learning program
3. A variety of assessment strategies must be employed to take in account the learners' strengths and weaknesses	<ul style="list-style-type: none"> • Learning is complex and can occur in many ways and at various levels • No single assessment process will assist the educator to fully understand the extent of the learning. • Assessment should be a comprehensive process that takes in consideration homework assignments, classroom presentations, daily work effort, tests, essays and examinations. • No single assessment strategy can assist the educator in gathering all the information necessary to assess the learners' learning
4. Both formal and informal assessment tools must be employed	<ul style="list-style-type: none"> • All assessment tools are beneficial in acquiring information about the learner
5. An assessment plan must be developed for each learning program based on the outcomes of the program.	<ul style="list-style-type: none"> • The assessment procedures must include diagnostic, formative and summative assessment tools. • Where applicable, assessment tools must be developed to assess attitudes, skills and academics. • Accurate and detailed records, and anecdotal (written daily comments about the learner) must be kept in a meaningful manner

Characteristic	Description
6. Assessment activities must make accommodation for higher level thinking so that opportunities for learning are provided while they are assessed	<ul style="list-style-type: none"> • Attitudes may not be assessed with every programme but appear frequently during the programme • Include previously acquired skills to new content and situations
7. Assessment programmes must provide for practical experiences for both the learner and the educator	<ul style="list-style-type: none"> • The mark, grade or comment from the test or assignment must be meaningful for both the educator and the learner. The results must convey a clear message about the learner's acquisition of outcomes.
8. Assessment procedures must be suitable for both individuals and small groups	<ul style="list-style-type: none"> • The approaches used to assess the learner's/group's performance must consider the development of the individual/group so that the educator can determine whether the programme is suitable.

(Board of Education for the City of Etobicoke, 1987)

• Factors to consider before Using an Assessment Tool

Before using an assessment tool, educators must consider the timing and what they are assessing at the particular time. The following chart provides the educator with issues that must be taken in consideration when using an assessment procedure.

Timing	What am I assessing at this particular time?
Purpose and method	<ul style="list-style-type: none"> • Why am I using this specific assessment tool?
Learner growth and curriculum effectiveness	<ul style="list-style-type: none"> • What do I know about all my learners? • How effective is the curriculum? • What do I expect to learn by using this assessment tool?
Learners' learning experiences	<ul style="list-style-type: none"> • What do I want my learners to learn from this assessment procedure?
Outcomes	<ul style="list-style-type: none"> • Does this assessment procedure relate to the outcomes? • In which outcomes will this progress be measured? • What weighting will I give to each outcome? • Does the weighting correspond to the relative importance of the outcome? • Will this procedure measure the degree to which the outcomes have been met?
Learner preparation	<ul style="list-style-type: none"> • Have I prepared my learners for this assessment procedure? • Does the learners understand the rating procedures?

Timing	What am I assessing at this particular time?
Time allotment	<ul style="list-style-type: none"> • Is the time allotment fair?
Allotment of Marks or grades	<ul style="list-style-type: none"> • Are the marks/grades appropriate for the difficulty of the task? • Are the marks/grades fair for the time allotted?
Different levels of ability	<ul style="list-style-type: none"> • Does this assessment procedure consider varying levels of ability within the class?
Learners with special education needs	<ul style="list-style-type: none"> • Does this assessment procedure accommodate the learners with special educational needs? • Does the assessment strategy make allowances for effective assessment for learners with special education needs? • Do I have to use alternative methods of assessment for learners with diverse needs?
Reasonable expectations	<ul style="list-style-type: none"> • What will I accept as a reasonable response or performance?
Follow-up	<ul style="list-style-type: none"> • Did I allow time for follow-up activities after the assessment?

(Board of Education for the City of Etobicoke, 1987)

- **Factors to consider in the Assessment of Learners with Educational Needs during Co-operative Learning in Inclusive Classrooms**

Area	Factors to be Considered
Levels of Development	<ul style="list-style-type: none"> • Determine the level of intellectual and emotional development before evaluating the learner • The educator should be fully aware of the development stage of the learner • Evaluation procedures must be on the level of the learner
Progress	<ul style="list-style-type: none"> • Short-term and long-term outcomes must be set in order to gauge the progress of the learners • Educators must be aware that progress occurs at various rates and not necessarily consistent with other learners • Educators must be aware that learners may regress when under stress • Consolidation of concepts may need more review and practice
Specific Strengths and Limitations	<ul style="list-style-type: none"> • All learners have strengths and limitations • Assessment of these strengths and limitations may have to be done on the basis of classroom modification • A large quantity of information must be gathered to conduct a more effective evaluation of the learner • A careful analysis of previous school history and background information can assist in conducting an effective assessment procedure

(Adapted from Board of Education Etobicoke, 1987)

• Authentic Assessment Procedures

Authentic assessment procedures are very prominent at the present moment. Authentic assessment reflects the observation of the learners' current work. Within the framework of outcomes-based education, the demand is that assessment should be carried out during authentic learning situations. This approach has four very appealing features. They:

- Support classroom structures
- Reflects local values, standards and controls
- Collect evidence from multiple activities in authentic learning situations and
- Promote learning and teaching among the educators.

The following are a few examples of authentic assessment procedures, a description of the procedures and the advantages of the procedures.

Example	Description	Advantages
Group projects	A small group of learners work together on a task. They need to plan, discuss, research, and present their findings.	<ul style="list-style-type: none"> • Assess the groups interaction • Assess the learners' abilities • Assess individual contributions • Assess inter –personal relationships • Assess teamwork
Interviews and oral presentations	Learners present work they have researched orally to the other groups, educator, or the class.	<ul style="list-style-type: none"> • Allows learners to present what they have learnt • Assess the completed task • Assess learners ability to communicate • Allows learners to express themselves freely • Allows for critical thinking
Written assignments	This could take the form of an essay, or analysis after research, findings, explanations or summaries.	<ul style="list-style-type: none"> • Assess learners understanding of a concept/research material • Assess how learners use facts and how they structure coherent arguments • Assess understanding and application of grammar • Assess learners thinking, writing and communication skills.
Peer/Group Assessment	Learners provide their own opinion of their peer's performance in comparison to the outcomes they should attain.	<ul style="list-style-type: none"> • Learners learn how to assess without feeling threatened • Learners are kept abreast of the expectations to attain their outcome • Learners learn from the experiences of others

Example	Description	Advantages
Practical Tasks	These could include the construction of an article, science experiments, drawings, maps, etc	<ul style="list-style-type: none"> • Allows for assessment of the learners fine motor co-ordination • Allows for the application of integrated skills
Portfolio assessment	The collection of work done over a period of time. This work is placed in a portfolio, file, large envelopes, and folder. The file should include the learners best work as well as the initial plans, drafts, self-evaluation	<ul style="list-style-type: none"> • Allows for assessment over a period of time • Includes self-assessment • Learners are assessed on a variety of performance activities.
Rubric	A scale set of criteria that clearly defines for the learner and the educator what a range of acceptable and unacceptable performance looks like.	<ul style="list-style-type: none"> • Assess whether the learner understood the activity • Assess whether the learner met the expected criteria • Learns whether there are any outstanding or unexpected features in the learners learning
Self-assessment	Learners are asked to assess themselves against the given outcomes.	<ul style="list-style-type: none"> • Learners begin to realize their own limitations • Learners are involved in the assessment procedure and could learn from the experience

(Board of Education for the City of Etobicoke, 1987)

- **Portfolio Assessment**

What is Portfolio Assessment?

Portfolio assessment is a method of evaluating a learner based on a collection of the learners' work samples. These samples of work are assessed based on the level of progress displayed in the samples. The educator must analyse whether the learner is demonstrating learning through the performance of worthwhile tasks. In effect, portfolio assessment can be viewed as one of the results of attempts to discover how learners learn. Together with hands-on demonstrations and open-ended questions, the portfolio reports a whole new philosophy of evaluation and assessment.

What is a Portfolio?

Artists, photographers, writers, actors and models have always used portfolios to display and present either their work or some concrete proof of their talents and what they have achieved. A portfolio is a file in which you keep all relevant work.

- **The Contents**

The contents of the portfolio can be selected and organized in a variety of ways to suit both the educator and the learner E.g concertina file, large size envelopes..

- **The Container**

The container for the contents, the physical size and shape of the portfolio, can vary from the simplest piece of construction paper to a sturdy cardboard box. Anything big will probably not be practical. The educator and learner decide on both the portfolio and the storage space. They should hold what you want to put in them, and they should be easily accessible for both the learner and the educator.

- **Kinds of Portfolios**

- Portfolios could be used in a variety of ways such as:
- A ***learners portfolio*** with the learners' work
- ***An educator portfolio*** with test scores; anecdotal records of observations and conferences with the learners, and anything else the educator may need to document an assessment of the learners' progress
- ***An educators' resource portfolio***, which is a general background material selected and saved to provide philosophical support for the educator, articles from professional journals, notes from in-service training sessions, references from books, etc.

For the learners portfolio the educators and the learners may decide together what kind of portfolio they would like to use or may change from one kind of portfolio to another

Where do I Start?

- Simply formalize a system by making labeled folders for each learner
- Stand them up in a box
- Appoint a learner as the "Portfolio Monitor"
- This "Portfolio Monitor" ensures that the portfolios are kept in order
- All work must be dated
- This will make it easier for the educator to conduct the evaluation of the progress of the learner has made over time
- The "Portfolio Monitor" can also make sure that the contents are dated
- Select work that the learner has selected too
- Keep the educator portfolio updated with your evaluation of the learners' progress

Ideas for Different Kinds of work to put in a Portfolio

- Writing Samples
- Show assignments from rough draft through editing and a revision process to a final polished draft
- Writing samples showing different parts of the process
- Writing starters and rubrics associated with the samples
- Writing done from various learning areas
- Research projects
- Interview notes
- Reading inventories or check lists
- Response to reading - book reports, posters, letters, etc.
- Tape recordings of oral reading
- Photographs of projects and activities
- Mathematics checklists and problem-solving samples
- Introductory notes to potential audience - parents, guests, interested educators, etc.

Samples of work for Showcase Portfolio

- A selection of items from the collection portfolio of best work and, growth over time
- Learner reflections on selections or general progress
- Memorabilia, newspaper clippings and photos, team photos, awards, snapshots, etc.

Samples of work for the Teacher/Learner Assessment Portfolio

- photocopies of material from the showcase portfolio
- Anecdotal records
- Conference records
- Interest inventories
- Educator made tests – learning program tests, open-ended tests, etc.
- Learner evaluations of the educator

Samples of work for the Educator's Resource Portfolio

- References to passages in books
- Learner evaluation of educators
- Notes from peer tutors
- Articles from educational journals/magazines
- Copies of a variety of assessment exemplars
- Notes from in-services (Jasmine, 1992)

Authentic assessment is not the only way of assessment. Learners can be given mini-tests to test the level of knowledge gained while the authentic assessment

can assess skills and attitudes and the application of knowledge.

- **Record Keeping**

Record keeping is a vital part of portfolio and authentic assessment. The records that are kept must reflect the range of improvement the learner has made, the processes that are going on, the effort that is displayed and the improvement that is demonstrated. Samples of meaningful record keeping could include checklists, anecdotal kept by educators, educator conferences with learners, and a descriptive assessment by the educator. Record keeping:

- Should be responsible record keeping for portfolio assessment and
- The educator should provide time for the learner to complete assessment procedures which will be kept in the portfolio such as surveys, forms, anecdotal record forms etc.

The following are examples of forms for record keeping:

Learner Conference Record for Reading

Date:

Learners' Name:

What is the title of the book you are reading?.....

.....

Who wrote the book?

Have you read other books by this author?

Why did you choose this book:

.....

Tell me something about the story that you have read:

.....

.....

What would you like to do when you are finished with this book? (Options: write a report, draw a poster, give an oral report to the class, writes a letter to the author, etc.)

.....

Would you like to read another book by the same author? Why?

.....

.....

Teacher comments:

.....

.....

Small Group Record Form

Date:

Kind of Group (co-operative learning, partners, etc.)

.....

Names of Learners:

.....

.....

.....

Learning Area:

.....

Instructional Task:

Behavior Observed:

.....

.....

This Behavior was Important because:

.....

.....

.....

.....

(Adapted from Bennett, Rollheiser-Bennett and Stevahn, 1991)

Co-operative Group Rating Sheet									
Room:	Date:								
Group:									
	1	2	3	4	5	6	7	8	9
Gets started									
Everyone participates									
Knows job									
Solves own group problems									
Everyone co-operates									
Keeps noise level down									
Encourage,ent seen/heard									
Educators comments:									
.....									
.....									
.....									
.....									

(Adapted from Bennett, Bennett-Rolheiser and Stevahn, 1991)

areas of the curriculum to target.

Gathering learner reaction	<ul style="list-style-type: none"> encourage learners to express their reactions to the assessment activity in written form
Make provision for learner-educator discussion	<ul style="list-style-type: none"> make opportunities available for the learners and the educator to discuss areas of difficulty and planning future improvement
Re-teach	<ul style="list-style-type: none"> identify a small group that needs re-teaching or assistance review or re-teach specific material if a different teaching approach
Review curriculum	<ul style="list-style-type: none"> review the learning program for inappropriate material review the year plan by changing the pace of learning and providing opportunities for repetition or reinforcement
Review study methods	<ul style="list-style-type: none"> teach appropriate study skills
Re-evaluation	<ul style="list-style-type: none"> re-evaluate for the use of more effective activities and teaching strategies

(Adapted from Jasmine, 1992)

- Modifying Evaluation Procedures for Learners with Special Education Needs**

Sometimes it is necessary to modify assessment practices for specific learners. This depends greatly upon the specific needs of the learners. For example, a learner who has fine motor difficulties may have to perform an oral assessment task or the learner who is visually impaired may need more time to complete tasks.

Modifications of the procedures for learners with special educational needs must be considered because evaluation is very closely related to learning outcomes, is an important part of the learning process and assess whether the activities and the teaching methods used in the class instruction are meeting the needs of the learners. (Salend, 1998)

- Suggestions for modification of evaluation procedures**

- Oral tests for learners with writing difficulties
- The use of tapes for learners with reading difficulties
- Oral questions, learners give the answer and a second learner could write the answers for learners with writing difficulties
- Allow for more time for slower learners
- Learner listens to a tape recorder with questions then writes the answer for the poor reader
- Re-phrase or repeat the question a few times for learners who grasp concepts at a slower pace

- In an assignment, modify the time line, quantity of work, or the nature of the assignment according to the learners needs
- Vary the degree of difficulty of an assignments to be evaluated in a more concrete way
- Provide assistive devices for the hard of hearing or partially sighted to assist the learner in learning activities
- If the learner has difficulty in expressing ideas in written form, the learner can be withdrawn from the classroom and the questions may be read to him/her orally. The answers to the questions may be recorded on tape.

Even though these modifications are made for the learners, the progress of the learner must be recorded and an effort must be made to meet their needs. After completing this section, part two of a questionnaire was completed by the educators (Appendix X).

- **Factors to consider for Assessing Learners with Diverse Cultures, and Dialects**

When assessing learners with different cultures and dialects, we need to consider specific factors that may impact on the assessment. The following is a guide for educators to follow:

Area	Factors to be considered
Language Difficulties	<ul style="list-style-type: none"> - First language plays a major role in a learners development of their identity and view of the world - Their language give shape and meaning to their learning experiences - Their language must not be undermined
Writing, reading and oral work	<ul style="list-style-type: none"> - Learners may translate directly from their first language - Language productions may produce constructions that sound awkward
Feelings of inadequacy	<ul style="list-style-type: none"> - Because of their cultural and language background, learners may feel inadequate to conduct oral presentations - The educator should provide oral alternative assessment procedures or provide frequent assistance
Access to resources	<ul style="list-style-type: none"> - Learners may have limited access to resources for research material - Incomplete and unsatisfactory research assignments may be expected - Prior to designing the assignments, conduct a diagnostic assessment to determine the level of research skills - Provide adequate training in research skills - Find alternative ways in providing research material/information
Writing skills	<ul style="list-style-type: none"> - Learners may have knowledge of the content but inadequate written skills to express this knowledge - Provide alternate assessment procedures - Oral assessment procedures would be an alternative.
Penmanship	<ul style="list-style-type: none"> - Accuracy and penmanship may not have been emphasized - Time limits for assignments may be poor - Assist learners by providing time management skills when completing their assignments

(Board of Education for the City of Etobicoke, 1987)

SESSION EIGHT – ONE HOUR**INTRODUCTION**

Every class has a diverse population. All learners are different, thus, their needs are different. Learners with special educational needs sometimes need extra support and adjustments in the regular classrooms.

- In your groups, list a few extra support that is needed for learners with special educational needs (10 minutes).
- Report back – each group presents their findings (10 minutes)
- These findings are discussed (10 minutes)
- We view the notes in this manual around learners with special educational needs (15 minutes)
- Discuss our findings (15 minutes)

2.4 LEARNERS WITH SPECIAL EDUCATIONAL NEEDS

Learners with special educational needs could be defined as those learners who are having learning difficulties in the classroom. This In-service Programme focuses on how both learners with special educational needs and regular learners can benefit from co-operative learning in inclusive classrooms. It is therefore necessary for the INSET educators to be familiar with the types of difficulties they may encounter with learners with special educational needs in an inclusive classroom. The following provides educators with difficulties, observable signs and possible strategies that may be used in an classrooms. Some of the most common difficulties are as follows:

- **Learners with Cognitive and Learning Difficulties**

Thinking and learning difficulties can manifest themselves in a variety of areas such as mathematics and language difficulties.

Mathematics

Area	Observable signs	Possible Classroom Strategies
Computation Skills	Cannot complete work with basic computational skills such as addition, subtraction, division and multiplication.	<ul style="list-style-type: none"> - Establish readiness for basic computation learning - Teach from concrete to abstract - Provide opportunities for frequent practice and exercise - Teach the learner how to generalize in new situations - Work through the learners' strengths to correct the weaknesses - Provide a balanced math program that includes concepts, skills and problem solving. - Use a step-by-step approach to teach any concept - Provide lessons with active participation from learners - Provide active sorting games - Use cards with coloured discs, domino games, playing cards, concrete objects, felt boards, magnetic boards, math workbooks/sheets - Use a stamp pad and a stamp for reinforcing number and sets recognition
Sorting	Unable to match numbers with sets of objects	<ul style="list-style-type: none"> - Use games/cards for learners to complete the order of numbers e.g. What comes after/before 6?
Number recognition	Unable to recognize numbers and sets	<ul style="list-style-type: none"> - Use number lines or blocks to walk on to understand the symbol and their relationships to each other. - Pattern games – Ask the learner to select the next object in a series that you have begun. - Relationships between concepts of size and length – have learners compare concrete objects for shape, size, length, width, taller, smaller, shorter, fatter, bigger, etc
Ordering of numbers	Unable to recognize the order of numbers	<ul style="list-style-type: none"> - Pairing – Pairing provides the basis for counting. Design activities to match/align one object with another. - Allow learners to arrange a row of pegs to line up with a prearranged row of pegs. - Verbal counting activities e.g. songs, recitations, etc - Use concrete objects to count - Count cups or containers - Use of pegboards, or numbered objects e.g. cups, drawings, etc. - Dot-to-dot activities - Counting objects in the classroom, e.g. doorknobs, doors, children, etc.
Pairing	one-to-one correspondence	<ul style="list-style-type: none"> - Colour cues may be used in recognizing the written number e.g. top of the 3 green and the bottom of the 3 red - Parking Lot Poster – draw a parking lot on a poster, numbering parking spaces with dots instead of numerals. Draw numerals on small cars and have the learners park the cars in their correct spaces. - Match the written number with the corresponding set of objects.

Area	Observable signs	Possible Classroom Strategies
Counting	Unable to count numbers correctly	<ul style="list-style-type: none"> - Trace numbers or number words on sandpaper, in the sand or with plasticine (clay)
Recognition of numbers	Counting erratically	<ul style="list-style-type: none"> - Re-assemble cut up numbers or words.
	Skipping objects when counting	<ul style="list-style-type: none"> - Use counting material such as an abacus, ply money, sticks, or measuring instruments e.g. water
	Unable to recognize numbers	<ul style="list-style-type: none"> - Puzzles, pegboards & form boards – These are useful in assisting the learners in focussing on shapes and spatial relations. For the learner who has difficulty locating and fitting the missing pieces, auditory clues and verbalization may be helpful. Discuss the shape that the learner is looking for and ask the learner to feel the edges for tactile clues. - Measurement – pouring sand, water or beans from a container of one shape or size to a different container helps them develop concepts of measurement. Estimating quantities, the use of measuring cups and the introduction of fractions can be stressed in these activities. - Word problems – use story problem-solving examples to demonstrate the solution
Motor activities	Unable to complete motor activities	<ul style="list-style-type: none"> - For learners with reading difficulties, read the problem to the learners
Problem-solving	Unable to do problem-solving activities	<ul style="list-style-type: none"> - Use concrete objects such as graphs, sticks, drawings, and other visual reinforcements to demonstrate the problem-solving steps to the solution - Have learners act out the problems - Substitute smaller and easier numbers for the learners to solve the problem - Have learners restate the problem with larger and more complex numbers - Analyze and assess the given information and learners determine what is still needed or what is unnecessary - Allow learners enough time to think out the solution to the problem - Develop problem-solving steps that can assist the learners e.g. read the problem, determine the question, gather the information, analyze the relationships, and decide on the procedure to solve the problem - Provide learners opportunities to estimate answers - Provide practice and similar problem-solving activities.

Language

Area	Characteristics	Strategies
Oral/Expression Language	<ul style="list-style-type: none"> - poor word retrieval - word substitution - poor language sequencing - low oral vocabulary - difficulty in repeating order of information - poor reading skills - difficulty in spelling 	<ul style="list-style-type: none"> - provide a language rich environment - develop oral presentation skills - provide many opportunities for discussion - provide organizational strategies - provide opportunities for oral reading - provide opportunities for group debates, or planned activities - provide extensive oral experiences - provide a supportive atmosphere - do not pressure the learner when errors occur, rather respond with the correct answer - use cues with the learner to facilitate word retrieval
Receptive language	<ul style="list-style-type: none"> - does not understand what is being said – no comprehension skills - low functioning vocabulary skills - process incoming information very slowly - answers right off topic - poor memory skills - poor listening skills - poor interaction in group/class discussions - cannot structure content of a topic 	<ul style="list-style-type: none"> - keep oral directions clear and simple - state the purpose of the lesson right at the beginning - assist learner to increase receptive vocabulary - develop understanding beyond the literary meaning of words and phrases - give learners extensive experiences with different audiences - discuss, model and provide opportunities for practices of a variety of comprehension skills - monitor comprehension continuously - use visual reinforcements e.g. drawings, photos, charts, maps, drama scenes etc. - provide advance organizers to help structure content - utilize co-operative learning structures for activities to promote language interaction - give short answers to questions - draw the attention of the listener to the speaker - monitor recall and understanding - put class rules on posters - provide opportunities for the learner to practice oral presentations - encourage learners to ask for clarification - ensure that the learner is attending before speaking to him/her
Written language - Text cohesion	<ul style="list-style-type: none"> - Confusion in sequence of events - Unable to recognize and utilize the formats of reference material e.g. dictionaries, encyclopaedias, and journals. - Unable to recognize and identify various sources of written communication e.g. books, letters, plays, videos, 	<ul style="list-style-type: none"> - Teach learners the parts of a story – use the hamburger approach. The top, the meat in the center, and the bottom which is the ending. Draw this picture so that the learners have a visual picture in their mind. - Teach learners about paragraphs – understanding pronouns, tenses and syntactic elements. - Teach learners how to make outlines for their stories e.g. doing a first draft, an amended one and then a final draft. - Provide opportunities for exposure to a variety of written formats such as newspapers, texts, stories, essays, letters, fairy tales, etc. - Allow opportunities for the recognition of basic elements of written formats such as the setting, conflicts and resolutions. - Allow learners to recognize and identify various

	<p>newspapers, notes, etc.</p> <ul style="list-style-type: none"> - Unable to apply knowledge in various written formats e.g. myths, comics, biographies, letters, fairy tales, essays and stories. - Unable to recognize and apply format clues of capitalization, punctuation, paragraph indentations, etc. - Unable to identify and recognize basic elements of various written formats such as story elements of setting, conflict, and resolution. 	<p>sources of written communication such as books, texts, newspapers, magazines, notes, letters, plays, poetry, etc.</p> <ul style="list-style-type: none"> - Provide learners with exposure to reference materials such as dictionaries, encyclopaedias, etc. - Allow learners to recognize and apply format clues such as punctuation, paragraph indentation, Capitalization, etc. - Avid discussion with the learners. The language-experience approach would be ideal for this section. - Provide experiences and opportunities that allow learners to recognize and express various intents and forms of expression represented in written language - Learners should be encouraged to use new and exciting words in their writing - Teach new vocabulary words - Provide experiences and opportunities that allow learners to recognize and use word meanings relative to context rather than merely the dictionary or common definitions. - Allow learners to develop sufficient context for a writing activity before actual writing is undertaken. - Vary the complexity and length of sentences. - Allow learners greater flexibility in expression - Provide experience and occasions that permit learners to recognize and apply appropriate grammatical structures and syntax to written language.
Pragmatics	<ul style="list-style-type: none"> - Unable to recognize the intent of the author - Unable to identify the parts that denotes the intent of the author 	<ul style="list-style-type: none"> - Allow learners to understand and use a variety of sentence structures. - Allow for discussion
Semantics	<ul style="list-style-type: none"> - Not willing to use new vocabulary in their writing 	<ul style="list-style-type: none"> - Telling stories to the educator who then write it down
Syntax	<ul style="list-style-type: none"> - Unable to recognize the words and their meanings - Limited information in the content of their written language - Use very easy and short sentences - Poor sentence structure - Poor grammatical usage 	<ul style="list-style-type: none"> - Teach dictionary skill - Use sentences in context then discuss to denote the meaning of words - Tell stories to educator who then writes it down - Learner can then copy this and reread it to the class/educator - Same as above - Use a combination of the structures above - Same as above

(Adapted from the York Region Roman Catholic Separate School Board, 1993)

- **Learners with Cultural and Language Difficulties**

Schools are considered as extensions of the community and should embrace and impart the values and skills that will serve all learners (Salend, 1989). South African schools are filled with learners with diverse needs, which include those who have cultural, and language barriers. It is imperative that educators be sensitive to the characteristics of these learners and plan a curriculum that will include their culture and language values. They would also like to become productive members of society and be recognized with their diverse needs. The educational concept that addresses cultural diversity and the provision of equal opportunities in all schools is multi-cultural education. The concept is based on the principles of our constitution that all learners have a right to education regardless of their gender, culture, race, religious beliefs, etc. But many of our learners with language and cultural differences still experience difficulties in centres of learning.

- **Characteristics to look for Learners with Cultural and Language Difficulties**

After the implementation of a democratic government in South Africa, learners are free to attend any school of their choice. Thus, with the diverse cultural and language population in south Africa, it is evident that in several schools we will find a diverse population. These learners need special attention as they may encounter difficulties in the learning process. The following is a guide for educators to observe such learners when difficulties are observed.

Area	Characteristics
Achievement	Slow, confused and unable to respond to academic expectation. Overly cautious on class work. Pays too much attention to the task at hand, forgetting about the time limits.
Behaviour	Shyness, especially in new situation or with strangers. Could be submissive or withdrawn. Displays fear of failure, non-trusting attitude or ambivalence towards authority. Can be assertive/aggressive and show frustration because of lack of success. Show signs of helplessness.
Does not complain about anything.	Does not ask for help when needed, is reticent about the family.
Total obedience and over-polite.	Overeager to please the teacher or, people in authority.
Poor self esteem.	Lack of acceptance by peers, educators and others, lack of success and achievement.
Delinquency	Extreme aggressive behaviour when forced into roles that clashes with their culture.
Confusion	Confusion during problem-solving activities.
Memorizing	May try to memorize to overcompensate for shortcomings.
Poverty	May come from a poor background, which is recognizable by the appearance, attire, health or nutrition.

Area	Characteristics
Language	Limited ability in language of classroom instruction, or underdevelopment in other languages.
Sensitivity	High sensitivity to the feelings and problems of others
Behaviour	Withdrawal behaviour when reprimanded or challenged.
Followers	They are usually followers in normal situations.

- **Learning and Teaching Strategies for Learners with Cultural and Language Difficulties**

Materials used to teach multi/bi-lingual learners must be relevant to their needs, learning style and experiences (Salend, 1998). Lack of relevancy and meaning based on their experiences causes frustration in their attempts to master assignments.

It is unrealistic to expect multi/bi-lingual learners to read and understand the language of instruction if the material is filled with figurative language e.g. "The old lady swore like a trooper." Or "The boy had trouble speaking his mind." Plain, simple and straightforward language usage is advised. The following are some strategies to assist the educator in appropriate instruction:

- Maximize the learner's exposure to natural communication
- Focus on the message being communicated not the linguistics
- Try to alleviate pressure on the learner by not expecting him/her to communicate immediately at the beginning of the lesson
- Create opportunities for the learners to interact and communicate with their peers through the use of co-operative learning structures
- Be sensitive to the learners disposition by utilizing ways in which the learner does not feel threatened
- Use the learners strengths to capitalize on for motivation
- Create an atmosphere where learners do not feel embarrassed through the use of support from their peers in co-operative learning groups
- Speak in the language on instruction and do not refer to the learners native tongue
- Learning activities must be created to benefit all learners such as highly motivational/interest material
- Include a wide range of cultures and races in learning and curriculum activities
- Assist learners in recognizing and appreciating the racial and cultural contributions of the diverse population
- Teach the cultural and racial differences by using them as phase organizers
- Recognize and celebrate the special days of different cultures

Within the inclusive classroom, the educator is confronted with a variety of learners with diverse needs. This inevitably creates difficulties in meeting the learners' needs. If indeed, the educator is at least familiar with these difficulties and have some strategies in addressing the needs of these learners, co-operative learning strategies may be implemented much more effectively.

After completing this section of the n-service programme. Part one of a questionnaire has to be completed by the educators (Appendix X).

SESSION NINE- FOUR AND A HALF HOURS

- The trainees choose their topic for the grade sample lessons (5 minutes)
- The trainees follow the procedure of the role of the educator and design and write their lessons following the procedure as stated in the notes (2 hours)
- The trainer provide guidance as the trainees write up their lessons (ongoing)
- Once the lesson is in written form, the trainer and the trainees review the content and design (35 minutes)
- The material is then developed (1½ hours)
- The trainer and the trainees review the material for the sample session (20 minutes)

This is an important part of the manual. At least one example should be developed.

SESSION TEN – THREE HOURS

This is a practical session. The educators are given an opportunity to implement their lessons to the other trainees. After each lesson, the other trainees are allowed to present their observations. The trainer also gives his/her observation. This is done to assist the educators to become specialized in the way they set up their lessons (2 hours).

The trainees use a sample lesson from the units they designed to present to the other trainees. Adjustments to their units are made according to beneficial comments from their audience and the researcher (1 hour).

Part Three:

How to use the programme

Part 2: Sample Lesson Plans

In this section, three sets of lessons are provided ready for implementation. Each set of fifteen lessons are provided for each of Grade 4, 5 and 6. All materials are provided in the appendixes to complement the lessons. The learning area of Language, Literacy and Communication. The following critical and specific outcomes for all units were identified for use:

Critical outcomes for all units

- Work effectively with others as members of a team, group, organisation and community.
- Identify and solve problems and make decisions using critical and creative thinking.
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation.

Learning outcomes for all units

- Make and negotiate meaning and understanding.
- Show critical awareness of language usage
- Use language for learning.
- Use appropriate communication strategies for specific purposes and situations.
- Understand, know and apply language structures and conventions in context.

Arts and Culture

- Use the creative processes of arts and culture to develop and apply social and interactive skills
- Apply knowledge and techniques and skills to create and be critically involved in arts and culture processes and products.

Life Orientation

- Understand and accept themselves as unique and worthwhile human beings
- Respect the rights of people to hold personal beliefs and values.

Each lesson has a specific outcome that would contribute to the achievement of the overall outcomes of the units.

3. SAMPLE LESSON PLANS

The sample lessons were devised so that all learners have access to a unitary

curriculum. Learners with special educational needs are accommodated according to their needs. For example, learners who have reading difficulties partner up with a buddy who reads the material to him/her. Learners who are unable to complete evaluation sheets are given alternative assessment procedures such as oral questioning or a buddy/educator assist them to complete the evaluation sheet.

Diving activity time learners with special educational needs are provided with tasks according to their strengths and could report orally if they are unable to report in written form. The oral information could be reported to the groups' scribe who will write the information down.

It is up to the educator to make these adjustments as only he/she knows the strengths/weaknesses of the learners

3.1 First Sample Unit – Grade 4

Learning Area: Language

Grade: 4

Learning Programme: Language, Literacy and Communication

Programme Organiser: Fables

Performance Indicators:

- Explore and observe
- Describe and discuss
- Ask and answer critical questions
- Collect data
- Understand how language is used in every day life
- Use different strategies to solve problems in decision making
- Understand the use of conventions and structures of language in written and oral language
- Create original meaning through personal texts
- Show their understanding of a written text by using a range of decoding and comprehension skills to make meaning
- Make inferences from a wide range of texts of different kinds
- Understand and show how context (situation) and text affect meaning and understanding

Assessment Criteria:

- Understand the differences in language conventions and structures
- Original meaning is created through personal texts
- A key message is identified and clarified
- Meaning is created through reading and inferences are made from texts
- Meaning is constructed through interaction from other language users

- Ways in which context affects meaning are identified and responded to
- Writer's, speaker's and signer's point of view is critically reflected on

Co-operative Learning Structure: Multi-structure for group-work

Number of Lessons: 15 of 40 minutes each

Lessons 1-3: Outcomes

Academic: To improve understanding and vocabulary

Social: Learners learn how to work together

Material: fables, books on fables, pictures of characters of the fables, worksheets for understanding and evaluation.

Co-operative learning groups: The groups are determined before the lesson begins, by the educator, about a week ahead of time. During the week the learners are introduced to activities on how to work together. (See section on team building for activities). Throughout the lessons of this unit, the learners work in the same co-operative learning groups until the theme is completed.

Lesson 1: 40 minutes

Step 1

Through questions, the learner determines what the learners understand by fables.

Step 2

A discussion follows on fables. E.g. "What is a fable?" This discussion continues for approximately 10 minutes. The educator then reads an example of a fable to the learners. This is the educator's choice of fables (See Appendix A 1-13). Through the use of questions, the educator and the learners draw up a definition of fables, which is then written on a worksheet, which is displayed in the class.

Step 3

After a definition has been established, questions are then asked to establish what the moral is of the fable. E.g. "What do you think the story is trying to tell us?" The moral is then discussed and how it relates to the detail in the fable that the educator read to the learners.

Step 4

A second fable (the educator's choice) is read to the class by the educator. The learners are then asked to divide into their co-operative learning groups. They are instructed to determine what the moral is of the fable that the educator had just read to them. Approximately five minutes are available to the groups for this discussion. The educator moves around in the class to lend assistance to the groups where necessary. After the five minutes, each group leader presents the

groups' opinion on the moral of the fable is. The educator facilitates a class discussion to determine the moral of the fable. Each group checks to see whether their moral coincides with the class decision.

Step 5

Each group selects a picture of a character of the fables read (See appendix B, 1-4). Make sure that this is easily accessible to the group leaders. The group is instructed to draw up vocabulary list on the back of the character. They can select any words that they have heard in the fable the educator read to them. The educator must supervise to make sure that all learners contribute to this activity. Learners with special education needs must also make a contribution even if it is orally.

Evaluation:

- Throughout the lesson the educator is supposed to observe the interaction within groups and record anecdotes on his/her observation sheets (See appendix C).
- The educator poses questions about the definition of fables and what a moral to each group to determine the learners understanding.
- Each individual completes an evaluation sheet on participation (See appendix D).

Lesson 2: 40 minutes

Co-operative learning structure: Think, Pair Share and Drama

Step 1

The educator divides the class in pairs. Ensure that the learners with special education needs are paired with an academically stronger person.

Step 2

Each pair of learners selects a fable (Appendix A 1-13), read it then identify the moral of the fable. Learners are given approximately 15 minutes.

Step 3

After the fifteen minutes has expired, each pair is given an opportunity to present their opinion of the fables moral.

Step 4

After each presentation, the educator and other pairs ask questions or make contributions to determine the correct moral of the fable.

Step 5

After each pair has had a turn to present their moral, they are given an opportunity to dramatize their moral of their fable. Those who have chosen the same fable may group together for the dramatization.

Evaluation: Use the same evaluation as for lesson 1.

Lesson 3: Use the co-operative learning structure of Graffiti.

Material: Coloured characters of the fables, crayons, coloured pencils.

First Task: The same co-operative learning groups are used as for lesson one.

Step 1

Each group selects a fable and coloured outlines of a character (See Appendix B 1-4) of the same fable. The educator is to cut out these characters in coloured paper prior to the lesson. Each group takes a set of coloured pencils or crayons.

Step 2

The groups put these characters together to make a booklet. Inside this booklet the team members contribute to make a vocabulary list. After they have written in their vocabulary words, the booklet is passed on to the next group. They then proceed to add more words to the booklet they receive. Each group is given five minutes at a time. This process continues until the group receives their original booklet.

Step 3

Each group presents their vocabulary list to the class. These books are then displayed in the class.

Evaluation:

- Each learner selects a comprehension sheet (See Appendix E 1-8) and completes it in the group. They have ten minutes in which to complete this. The educator must make sure, through observation, learners need assistance. Ensure that the learners with special education needs or other learners who have difficulty in reading or writing are paired with a stronger learner who could assist them. The educator is supposed to mark these sheets so that they can determine how much learning was done as well as the level of comprehension.
- Number one and two of Lesson 1's evaluation is used.

Lesson 4-6: Outcomes

Academic: Learning of other sayings/morals

Social: How to take turns in a group.

Material: worksheets, evaluation sheets

Co-operative Learning Structure: Jigsaw

Lesson 4: 40 minutes

Step 1

The educator chooses morals from the fables. E.g. he who laughs last, laughs the best; do not be fooled by flattery; etc. Each group is presented with a moral on a sheet of paper. The team then discusses moral. After 10 minutes of discussion, the group presents their understanding of the moral. Each group is allowed to add their comments so that all have the understanding of the moral.

Step 2

Each group is presented with a worksheet on "Aesop's Fables". (See appendix F) There are four questions and each team member is to conduct research on the question they choose. If there are more than four members of the team, team members could be paired to conduct the research. Take note, this is where you can pair a strong learner with a weaker one or a strong reader with a better one, etc. Members of each team who has the same question to research team up to make one team. They conduct research together. The educator must make sure that research materials are available e.g. books, tapes, etc. Fifteen minutes is set aside to conduct this research. After the team has discussed their findings, they share their information.

Step 3

Team members return to their original groups. Members of the team who has researched a question then presents their findings to their group. Finally, the answers of all four questions are discussed. The leader must sure that everyone understands and agrees with the material presented. They write up their findings.

Step 4

The educator must make sure that he/she observes the learners to ensure participation and make suggestions where he/she deems necessary. He/she must also note down their observation on both learning and social progress.

Step 5

The class meets and each group presents their findings. The educator can make comments e.g. "good work", "look at group four's presentation and it seems you left out....." etc. Each group hands in their written report.

Evaluation:

- The educator marks the group's written report according to various categories. (See Appendix G)
- The learners fill out a self-evaluation sheet. (See Appendix H).

Lesson 5: Use the co-operative learning structure of Group-work**Step 1**

Each group is give a worksheet "Remember your Fables" (see Appendix I) The group discuss the activity then answer the questions as a group. Make sure that all learners participate and assistance is given to all. They then store this until later.

Step 2

A second worksheet is given to the group "What did the Mouse say to the Lion?" (See appendix J). The group discusses this activity then arranges the pictures in correct order. Each member is given a picture and writes what the mouse said to the lion. The vocabulary list could be used as a spelling resource as well as the morals. The educator must observe whether the learners with special needs are partnered with stronger learners.

Evaluation:

- The educator keeps anecdotal of his/her observations.
- The learners fill out a self-evaluation sheet - the same as lesson 4.

Lesson Six: Group-work

Material: Coloured paper, pencil, coloured pens.

Step 1

Each group is given a worksheet "Make your own accordion book" (See appendix K). The group discusses the task then assign jobs to each member. Each group makes a book about their selection of a fable. Ensure that each member of the team is given a task so that the book is completed.

Step 2

The group discusses the final product then presents it to the class.

Evaluation: The same evaluation is used as in Lesson 5.

Lesson 7 – 8: Outcomes:

Academic: Concentration on Nouns, Personal nouns and adjectives for vocabulary.

Social: Concentrate on decision-making.

Material: evaluation sheets, worksheets, pictures/drawings of various characters in the fables fable book.

Co-operative Learning structure: Group discussion

Lesson 7 – 8: will last over two 40 minute lessons. As an introduction to the next activity, the educator and the learners discuss names that they encountered in the fables. As the learners list the names, the educator writes it on three large sheets of paper. Each sheet of paper will be have a heading viz. Nouns, personal nouns, and adjectives/describing words. The learners are asked to suggest on which sheet the words belong. The educator assists the learners by justifying why the word belongs on the different sheets. These sheets are then posted in the classroom to be used as vocabulary in the learners written work.

Before the learners commence the following steps, the educator must describe these steps to the learners. It could be written on the board, a sheet of paper posted on the board or on a sheet of paper given to the learners. The learners must also be instructed that they only have five minutes for each step. In this case the educator could be the timekeeper.

Step 1

The learners move into their original co-operative learning groups. They choose a new fable and read it.

Step 2

The group discusses the fable and retells the fable in their own words. The leader must make sure that every member understands the fable. Members of the team must assist the learners that need special attention.

Step 3

Once everyone understands the fable, the members of the team try to identify the moral of the fable. Make sure that all learners in the teams participate. The educator must monitor this carefully and offer assistance where necessary.

Step 4

Discuss how this moral can be applied in everyday life.

Step 5

The group write the moral of their story in their own words on a character of the story (See Appendix B 1-4). On the reverse side the learners write nouns, personal nouns and adjectives they encountered in their fable. These should be listed in their own categories e.g. nouns, personal nouns and adjectives.

Evaluation:

- The educator checks the fable characters to see if the groups understand the different parts of speech.
- The learners fill in a self-evaluation sheet (See Appendix H) that was used in previous lessons.

All observations and anecdotes written by the educator must be kept in the educators' portfolio.

Lesson 9 – 11: Outcomes

Academic: Using nouns, personal nouns and adjectives in written language.

Social: How to make decisions as a group.

Material: Decorated sheets, evaluation sheets

Co-operative Learning structure: Free Writing and Drama

Lesson 9 – 11 will last over three 40-minute periods. The first period will deal specifically in the identification of nouns, adjective and personal nouns.

Step 1

As an introduction the educator refers learners to the vocabulary lists. Learners' are asked to identify words that are objects, then personal names and then tells me something about an object.

Step 2

The educator could then solicit a definition for the word from the learners. The educator introduces the type of words such as Kate is a personal noun, red is an adjective and book is a noun.

Step 3

As a class, a definition is established. This is then written on a large sheet and displayed in the classroom. Groups are given an opportunity to add words to the lists.

Evaluation:

- The educator keep notes on the decision making process in the group.
- The learners are given an oral class quiz on nouns, personal nouns and adjectives in the form of a game. The educator observes who scores the most points.

Lesson 10: The learners (in their groups) now proceed to write their own fable using some of the words from the vocabulary list and the list of nouns, adjectives and personal nouns. A copy of the play is handed to the educator for evaluation.

Evaluation: The educator observes if the groups are using nouns, adjectives and personal nouns in correct context as well whether they make decisions as a team. The anecdotes are recorded in the educator's observation sheets.

Lesson 11: The groups prepare to present their play. The play can be presented through mime, active speaking, etc. Each group has a turn to present their play.

Step 1

The group makes a decision on how they will present their play.

Step 2

Each member of the group is presented with his part in the group.

Step3

The group discuss the material they would need to present their play.

Step 4

The group practices their presentation.

Step 5

The group presents their play to the class.

Evaluation:

- The learners fill out a self-evaluation sheet (See Appendix H).
- The educator give verbal feedback to each group after they have presented their play. (focus on the academic and social goals).

Lesson 12 – 14: Outcomes

Academic: Concentrate on oral and written language.

Social: How to assist teammates.

Material: activity cards, sheets of paper to write on.

Co-operative Learning Structure: Round Robin

Lesson 12-14 may take three lessons. This is a long activity. Groups are expected to continue into the next lesson where they have left off in the previous lesson. The educator must remind the leaders that they must take every learner's capability in consideration when they plan their activity. E.g. the non-reader must be given work or a task that he/she can cope with.

Step 1

The groups proceed to their original groups. The educator reads a fable to the class. He/she then asks questions about the fable at random to individuals in the class.

Step 2

The educator must ensure that the learners answer questions in full sentences. The learners are reminded to use adjectives, nouns and personal; nouns that were discussed previously. Groups complete an activity card. (See appendix L)

Step 3

Each group is given a decorated sheet (See Appendix M) which is then given to the leader.

Step 4

Each group member is given a different colour pencil/crayon.

Step 5

The educator gives the instruction. Each group must write their own fable.

Step 6

The group discusses the name for their fable.

Step 7

They then proceed to construct their story. The leader starts with his/her

contribution on the page, the sheet is passed to the next person, until each group member has had a turn to write their contributions to the fable.

Step 8

When the sheet reaches the leader again, the group review the contributions and look at cohesion and the order of the fable. If the fable is incomplete, they continue in a round robin fashion again until the fable has an ending.

Step 9

The fable is reviewed and refined again until all team members are satisfied with the fable.

Step 10

The writer of the team writes up the fable on a large sheet of paper. Each group members contribution must be written in their specific coloured pencil so that when the educator evaluates he/she knows whose contribution it is.

Step 11

The learners prepare to present their fable and moral of the fable to the class. The select roles, material and practice for the presentation.

Step 12

The group presents their fables to the class.

Evaluation:

- The educator fills out a written work evaluation sheet for each individual.
- The educator observes how learners assist each other.

Lesson 15: Outcomes

Academic: Concentrate on oral language.

Social: Active participation from all learners.

Material: Each group selects their own material

Co-operative Learning Structure: Groups choice

Activity: Parents' Day

This is a planned day for the parents. The learners assist in the planning with the educator. Each group is expected to do a presentation for the parents.

Evaluation:

- The educator does an overall evaluation that is given to the learners as well as a copy is kept in her/his file.
- The learners complete their own evaluation sheet (See appendix M).

3.2 Second Sample Unit – Grade 5

Learning Programme Area: Language

Grade: 5

Programme Organiser: Transport

Performance Indicators:

- Use new vocabulary in written and oral work
- Use antonyms, synonyms and homonyms in written and oral language correctly
- Collect, analyse, organise and critically evaluate data
- Ask and answer critical questions
- Explore and observe
- Describe and discuss
- Use different strategies to solve problems
- Understand how transport is used in every day life
- Show understanding of written texts by using a range of decoding and comprehension skills to make meaning
- A point of view can be critically reflected on
- Make inferences from a wide range of texts of different kinds

Co-operative Learning Structure: Group Investigation

Number of Lessons: 15 of 40-minute each

Lesson 1-3: Outcomes

Academic: Acquiring new vocabulary

Social: How to work together in a group.

Material: pictures and posters of different means of transportation, think tank work sheets, outlines of different means of transportation, worksheets on suffixes and prefixes.

Co-operative Learning Structure: A variety of cooperative learning structures are used such as Think, Pair, Share and Graffiti, group discussions, etc

Co-operative Learning Groups: (See group selection to determine the groups). Groups are determined by the educator about a week or two before the lessons are introduced. The learners can work in these groups to prepare for the unit. The educator can select skills and teach the learners e.g. how to take turns in groups, how to make decisions in a group, how to talk to each other in groups, etc. The educator should determine the necessary skills for group-work. Working together in groups provides the learners an opportunity to practice the new

acquired skills taught by the educator. Throughout the seventeen lessons, the learners work in the same co-operative learning groups as determined by the educator at the onset of this theme.

Lesson 1-3: Three lessons of 40 minutes each. The educator introduces the lesson.

Co-operative Learning Structure: Think, Pair, Share.

Step 1

The educator using a poster conducts A general discussion of a horse and cart. The educator uses other posters and pictures for further discussion. The educators asks questions about the posters relating to transport, the educator solicits answers for a theme. E.g. what do all these picture and posters have in common, which is the most commonly used mode; etc.

Step 2

As the discussion is conducted, the educator writes down the names of commonly used modes of transport. This will compile a vocabulary list. The vocabulary list is posted in the classroom.

Step 3

The educator will also add words to the list that have suffixes and prefixes. The educator then asks the learners what are different about these words. The discussion that follows will lead to questions from the educator such as "What smaller words can I make out of this word?" e.g. learner – learn - er is the suffix, the addition at a back of a word; relearn – learn – re – is added to the front of the word.

Step 4

At the end of the discussion, the educator allows the learners each to contribute a word to the class chart, then circle the suffixes and the prefixes.

Step 5

Now, use the cooperative learning structure of "Think, Pair and Share". Learners are divided into pairs. Each pair is considered as a think tank that describes various means of transport. (See Appendix N 1-5). Their descriptions should use words from the transportation vocabulary list. After they have completed this, the pairs present their findings to the class. Ensure that you pair a learner with special education needs with a stronger learner, depending on their needs.

Step 6

For further development on vocabulary, the educator use the co-operative learning structure of "Graffiti". In this step, the original cooperative learning groups work together again. Each group gets three or four sheets of the outline of a specific mode of transports (See Appendix N 1-5). These sheets are placed together to form a booklet. The pages are stapled together. Starting with the leader of the group, each learner writes down a word related to transportation. The book is passed around from one learner to the other until the booklet returns

to the leader. Each group passes their booklet to the next group who then adds extra vocabulary words on transportation to the list. This continues until the booklet arrives at the original group. Ensure that each group add two words with either a suffix or a prefix.

Step 7

Each group presents their vocabulary list to the class. These booklets are displayed on the bulletin board in the hall or the class.

Evaluation:

- The educator provides each learner with a sheet numbered from 1 – 10 (See Appendix O). He/she then dictates 10 words selected by the educator from the vocabulary list. The learners writes these words on their sheets. These sheets are marked by the teacher and placed in the learners' portfolio.
- The educator gives feedback to each group on his/her observations of group-work. The educator records his/her feedback and places it in the educator portfolio.

Lesson 4 - 6: Outcomes

Academic: Learning about antonyms, synonyms and homonyms.

Social: How to take turns in a group discussion.

Material: Worksheets

Co-operative Learning structure: The use of Jigsaw

It will take approximately three lessons of 40 minutes each to complete the whole "Jigsaw" structure. As an introduction to the lesson, the educator refers to the words on the vocabulary list and stimulates a discussion around these words. The ultimate goal is to evoke word that refers to the academic objective such as, car, lorry, etc – similar words (synonyms), are automobile, truck, etc or plane, plain – words that sound the same but have different meanings and are spelt differently (homonyms) etc. or run – walk, words that have opposite meaning (antonyms). The words are then written on large sheets under different headings such as antonyms – words that mean the opposite, synonyms – words that mean the same and homonyms – words that are spelt and have different meanings but sound the same. These words should be used in their written presentations.

Step 1

Learners are divided in their cooperative learning groups. The learners are instructed to select a form of transport for each group. Possible topics on transportation that the groups can research is the horse and cart, the automobile, boats, the bu planes, airships, bicycle, etc. They then discuss possible questions that could be answered by various members of the group through their research is: When was the first discovered? The different types of How the works. What are? used for? Other information that the

learner would like to know about the

Step 2

Once the team has decided on a topic, they then choose an area or question on the topic that they would research for answers. The group finds a group who is researching the same type of transport. Members from both groups with the same question then partners up and conduct their research together. Once there research is conducted, they compare notes and learn from each others' research. The individual learners then determine how they will present their research material to their original groups.

Step 3

All learners return to their original groups and take turns in presenting their material. The purpose is to empower all members on the content or data and ensure that it is understood by all members of the team. The leader of the team must pay attention to the special education learners to ensure that they understand the material.

Step 4

Now the team determines whether all members of the team understand all the contents of all the presentations. Individual learners can ask questions. Those who do not, use various ways to determine if the learners understand the material e.g. by asking questions such as: "Who invented the automobile?" "What do we use it for?"

Step 5

The groups write up a report on their topic. Each learner is given a job e.g. read, write, prepare the paper, pens, etc.

Step 6

The groups present their material to the class. Each team member is given a job to do: read, act out, etc.

Evaluation:

- Learners complete a worksheet on antonyms, synonyms and homonyms. (See Appendix P).
- A self-evaluation sheet is completed by the learners (See Appendix H)
- The educator keeps her/his own anecdotes but must give verbal feedback to the groups/individual learners.

Lesson 7 – 8: Outcomes

Academic: The use of vocabulary in written and oral language

Social: How to make group decisions.

Material: Pictures of various types of transportation, magazines and

newspapers.

Co-operative Learning structure: Group discussion

Lessons 7 and 8: Two 40-minute lessons.

Step 1

The learners are divided into their groups. The educator instructs the groups to choose a topic on transportation/related to any types of transportation from a magazine or newspaper.

Step 2

The group is to read this article, then discuss it. Ensure that the learner with special education/poor reader is assisted by a member of the team. If the group prefers to read the article individually, partner the poor learner with a good reader for assistance.

Step 3

After the groups have discussed the article, they are to formulate their own interpretation of the article.

Step 4

The groups proceed to write the article, using each learner's contributions. Refer the groups to the vocabulary list of previous lessons for use in their written article.

Step 5

The groups present their rewritten article to the class. This can be done in any form as decided upon by the groups.

Evaluation:

- The educator is to observe how the groups make decisions. Immediate assistance can be given as the educator moves around in groups. The final feedback is given to individual groups at the end of the presentation (See Appendix Q).
- The learners complete a self-evaluation sheet on their contributions in the group (See Appendix H).
- The educator marks the written article of each group and provides feedback to each group individually at a later stage.
- The educator also provides immediate feedback on oral work after the groups have done their presentations.

Lessons 9 – 11: Outcomes

Academic: The use of all vocabulary words, including the antonyms, synonyms and homonyms in written language.

Social: Concentration on group decision-making.

Material: Special transportation sheets.

Co-operative Learning structure: Round Robin

It will take approximately three lessons of 40 minutes each to complete this task. Since this is a written task, assist the learners who are poor writers and spellers.

Step 1

The learners are divided into their cooperative learning groups. Groups are instructed that they will be involved in a group discussion. The group is to choose a mode of transportation that they are interested in.

Step 2

The groups are to write a story, not a report, on their mode of transport. A sheet of paper is passed around the table, starting with the leader of the team.

Step 3

The leader begins with the beginning of the story. Each group member is expected to write their contribution to the story keeping focus on the detail and sequence of the story. It is important that the group members keep in mind the objective of the lessons as well as utilize vocabulary words they have already learnt.

Step 4

This process continues until the story is completed. The story is reviewed by the class and discussed so that the final product is a cohesive story.

Step 5

The story is presented to the class in any way the group wishes. E.g. charades, play, radio show, etc.

Step 6

Immediate feedback is given to the learners by the educator as soon as they have conducted their presentation.

Evaluation:

- The educator keeps his/her own notes and records it in the educator portfolio.
- Use self-evaluation sheets (See Appendix R).

Lesson 12 – 14: Outcomes

Academic: The focus is on reading and how to follow directions.

Social: The focus is on how to give assistance in a group.

Material: worksheets, pencil, scissors, clothes hanger, and string

Lesson 12-14: Three lessons of 40 minutes each.

Co-operative learning structure: Group-work.

Step 1

Each group is given the following instruction chart.

Make a Car Mobile

In a factory, the workers work on a conveyor belt. The same person does not conduct all the work but each worker has to contribute to make the final product. The material, parts, machines and tools must be ready for the workers to use.

Make your own conveyor belt in your group to complete a car mobile. You will need scissors, pencils, crayons, string, a clothes hanger, shapes of cars, and a punch.

Group members must help each other where necessary.

Method:

1. One member of the group must colour in a car pattern (See Appendix S 1 – 7).
2. The second member cuts out the shape of the car.
3. The third member of the group punches a whole in the car pattern.
4. The fourth member of the group cut the string and attaches it to the punched hole.
5. Reverse the order of the jobs so that each member has a turn to do a different job until all the cars are on the mobile.

Evaluation: The educator observes and write his/her anecdotes in a educator portfolio – on social and academic objective.

Lesson 15: Outcomes

Academic: How to evaluate.

Social: Making decisions together.

Material: Evaluation sheets

Co-operative Learning structure: Group-work

Groups are given 40 minutes to complete the final evaluation sheet (See Appendix W).

3.3 Third Sample Unit – Grade 6

Learning Programme: Language

Grade: 6

The Programme Organiser: The Universe

Performance Indicators:

- Collect, analyse, organise and critically evaluate data
- Use language conventions correctly in oral and written expression
- Explore and observe
- Describe and discuss
- Ask and answer critical questions
- Show their understanding of written text by using a range of decoding and comprehension skills to make meaning
- A point of view can be critically reflected on
- Interact in other language users in order to interpret a range of texts (visual, oral and written)

Assessment Criteria:

- A key message is identified and clarified
- Meaning is created through reading and inferences are made from texts
- Writer's/speaker's/signer's point of view is critically reflected on
- Ways in which contexts affects meaning are identified and responded to
- Original meaning is created through personal texts
- Meaning is constructed through interaction with other language users

Co-operative Learning Structure: Co-op Co-op

Number of Lessons: 15 of 40 minutes each.

Lesson 1-3: Outcomes

Academic: Enrichment of vocabulary

Social: How to work together in groups.

Material: pictures of the universe and planets.

Co-operative Learning Groups: the educator determines the groups about two weeks before the unit is started. The learners must know why they are being grouped. During the two weeks before you start the unit, introduce the learners to team building activities so that the learners at least are introduced to basic working together skills. (See section on team building). Throughout the unit, the same learners stay together in the same group until the theme is completed.

Lesson 1-3: Three 40-minute lessons.**Step 1**

The educator introduces the theme to the class as a whole. This can be done by asking questions pertaining to the universe or general questions about our environment we live in. E.g. As a society we live together. "What do we call this area we live in?" "Are there other humans living on this earth?" "Where do they live?" "Are there any other areas in space?" "What do we call them?" etc. This can be done until all the planets are identified. Use pictures to refer to in your discussion.

Step 2

The learners are divided into cooperative learning groups (see section on how to formulate groups).

Step 3

Each group is given a pattern of things in the universe. E.g. stars, planets, etc. (See Appendix T 1- 4)

Step 4

The groups are instructed to write down words they have learnt in the discussion about the universe. All learners must contribute but one person can be the writer. Assist those learners who are hesitant to contribute. Each group is given approximately five minutes.

Step 5

Now the groups are given a chance to present their vocabulary list to another group so that they may add words to other groups' lists.

Step 6

Each list travels from group to group until it arrives at the original group.

Step 7

Each group has an opportunity to present their list to the class to ensure that they have not missed out any words or so that the educator can also provide words that the groups can add to their lists.

Step 8

The groups can use their worksheets to make a little vocabulary booklet.

Evaluation: The educator writes down anecdotes on class and group participation and interests of learners.

Lesson 4: Outcomes

Academic: Recognition of nouns and planning for the research.

Social: Team building

Material: Research planning forms

Lesson 4: 40 minutes lesson.

Step 1

The groups are provided with a research-planning sheet (See Appendix U). They are instructed to discuss possible areas that could be researched on the universe. Encourage the groups to choose something that are of interest to the group and identify nouns.

Step 2

After avid discussion in the groups, the groups return to the class and report the area that they would like to conduct research on.

Step 3

The groups identify the nouns on their planning sheet and reports it to the class.

Step 4

The educator review the areas presented to the class from the groups and ensure that each group has a different area to research. This is to ensure that a wide range of areas about the universe will be covered to learn.

Evaluation:

- The educator observe the team work and participation among members.
- The learners fill out an evaluation sheet on their contribution the group effort. (See appendix D).

Lesson 5: Outcomes

Academic: Focus on verbs.

Social: Focus on making team decisions.

Material: A variety of resources such as books, magazines, videos, etc on the universe.

Lesson 5: One 40-minute lesson

Step 1

The groups select a variety of resources to find mini-topics that can be researched E.g. if their topic is Mars they can find mini topics such as life on mars, the structure of mars, distance from other planets, physical features, etc.

Step 2

Once the group has selected a variety of mini-topics, the use a research planning sheet to plan their research (See Appendix V). Ensure that there are enough areas for all members of the group. If there are not enough, team members up to conduct the research. Also ensure that the learners with special education needs are assisted by a stronger member of the team.

Step 3

The groups return to the class with their final draft of their research planning sheets (See Appendix V) and present it to the class.

Step 4

The team leader ensures that all members of the group are conversant with what they have to do. Each member then takes their daily research planning sheets and conducts their research. While the learners are conducting their research, they must make notes so that they can report this back to the team.

Evaluation: Same as lesson four.

Lesson 6: Outcomes

Academic: Review of adjectives

Social: Focus on working together in a group.

Material: Resource material – whatever the learners wish to use for their research.

Lesson 6: One 40-minute lesson.

Step 1

The groups get together to prepare for their presentation of their research. They must gather all their data, plan how they want to present it and what information they will use from the group collection.

Step 2

This is done through avid discussion in the group. They also decide on what media they will use to present their research.

Evaluation: The educator observe and keep notes on how the group work together. These notes are filed in the educator portfolio.

Lessons 7 – 8: Outcomes

Academic: Focus on written language.

Social: Working together in a team.

Material: specific drawings of items from the universe (See Appendix S1-4)

Lessons 7-8: Two 40-minute lessons.

Step 1

Using specific drawings of items in the universe, the groups proceed to write up their research. Make sure that the learners use information from all members in

their report.

Step 2

The use the sheets to make a booklet of their research data. One member of the team can make a cover for the booklet.

Step 3

These booklets are handed to the educator for observation and feedback.

Evaluation: The educator uses an evaluation sheet to assess written language and data (See Appendix G).

Lesson 9 – 10: Outcomes

This is the presentation of the research by all groups and will take approximately two lessons. The educator must determine how much time they will allot each group for their presentation.

Academic: Focus on oral language and word usage.

Social: Focus on teamwork.

Material: The groups can use any material they wish.

Lessons 9-10: Two 40-minute lessons

Each group is given an opportunity to present their research data. This could be a radio show, a play, oral presentation, etc. The media of presentation depends on the group. They have to find their own material and do their own planning.

Evaluation: The educator observes and does the evaluation. This could be done according to the criteria the educator prescribes. The learners must be informed about how and what they will be evaluated for.

Lesson 11 – 13: Outcomes

Academic: Testing for knowledge on their data collected.

Social: Working together in a group and making group decisions.

Material: This depends on the media the learners will use to present a visual representation of their topic.

Step 1

During this step, the groups decide what visual representation they will make of their topic. E.g. a paper mache representation, raised mural, model, etc. No drawings unless a variety of tangible materials are used. Ensure that all members of the team have inputs. Everyone's contributions are valuable. They

plan out how they will make their representation and assign roles to each member of the team.

Step 2

The groups gather the material they will need. After they have gathered all the necessary material, they proceed to complete their assignment. This will take approximately the three lessons.

Evaluation:

- The educator use the art evaluation sheet to assess the final project (See Appendix W).
- The group complete evaluation sheets of their contribution to the team effort (See Appendix D).

Lesson 14: Outcomes

Academic: Concentrate on oral language

Social: Working as a team.

Material: The completed article.

Lesson 14: One 40-minute lesson.

The learner's display their finish product (visual representation) and groups are given turns to visit each other's displays. Evaluation sheets are provided at each presentation for visitors to complete.

Evaluation: All learners fill out an evaluation sheet (See Appendix M which does the educator collect. These are then interpreted by the educator with the specific group.

Lesson 15: Outcomes

Academic: Written work in evaluation.

Social: Assisting teammates in a group.

Material: Final evaluation worksheets.

Lesson15: One 40-minute lesson.

Co-operative Learning Structure: Group-work.

The educator ensures the learners how they will be evaluated – in group and individually. If learners have questions, these must be answered. The learners all complete a final evaluation chart (see previous lesson).

Evaluation: Through a discussion both the learners and the educator gives their opinion about the them work and unit. The learners are urged to give their opinions about what they had learnt in this unit.

Part Four:

Appendixes

Appendix A

Fables

1. THE MOUSE AND THE LION

Once upon a time a little mouse met a lion lying across the street. The mouse was unable to pass so he had to walk over the lion. The lion woke up and immediately he became very angry and wanted to grab the mouse.

"Please Mr. Lion, do not eat me your majesty: pleaded the mouse. "If you let me go free, I will never bother you again. I will always be grateful to you and someday I will do you a favour".

The lion grinned and said, "Well, well, well! A mouse that thinks he can do a favour for a lion! Will you help me hunt or would you prefer to roar in my place"

The mouse did not know what to say, and whispered "Your Majesty!

But then, the lion let the mouse go and said, " Well then, you may go".

A few days later, the lion was trapped in a lion trap. He struggled to get free but he could not free himself. He was so tired of all the struggling that he could not move. He knew this was the end of him. He was just about to give up when the mouse came along.

The mouse asked the lion if he needed his help. The lion saw the mouse and said "Oh! it is you. No, I don't think you can help me. There is nothing that a small mouse can do to help me".

The mouse then said to the mouse "I can try to gnaw through the ropes. I have strong teeth, and if I gnaw long enough, I may be able to free you". The mouse then started to gnaw and after a long time he freed the lion.

"Do you see your majesty, I did you a favour in exchange for the favour you did for me.

"You are quite right mouse," said the lion. "I never knew such a big animal like me would ever be so grateful to a small mite like you".

2. THE GRASSHOPPER AND THE ANT

Once upon a time, on a warm summer's day, a grasshopper sat on a tree branch and sang merrily. Below him, a long row of ants was busy gathering ears of grain.

"Why are you working so hard my friends?" asked the grasshopper. "Come and sit in the shade and sing with me. Get out of the hot sun"

But the ants worked merrily along and said, "We cannot do that. We must collect enough food for the winter".

“But the winter is still a long off. The summer is not over for a long time. I would rather sing than work in this very hot weather”. The whole of the summer the ants worked while the grasshopper sang and played. Then the autumn came and the leaves began to fall from the trees. Only then the grasshopper climbed out of the tree. One morning very early, the grasshopper awoke and was shivering from cold.

Finally the winter was there and the grasshopper was looking for food. But, all he could find on the hard, cold ground were a few dry bits of grass. Then it started to snow and it was even harder for the grasshopper to find food.

One very cold evening, as the grasshopper was travelling to look for food, he saw a dim light in the distance. He traveled in that direction until he reached the light.

“Open the door. Hurry up please,” said the grasshopper. “I am dying of hunger. Give me some food please”. An ant appeared at the window and asked “Who is there and what do you want?”

“It is me, grasshopper. I am cold and hungry. I do not even have a roof over my head”.

“The grasshopper? Oh yes! I remember you. What did you do all summer long while we were working to prepare for the winter?”

“I was singing so that the whole world can hear my song”.

“Oh, is that what you were doing? Did you sing?” asked the ant. “Well, why do you not start dancing right now”.

3. THE WOLF AND THE CRANE

A long, long time ago, a bone got stuck in the throat of a wolf. He was so worried because he did not know how to get the bone out his throat. He asked so many animals to help him, but they could not.

He then met a crane. The wolf begged the crane to help him remove the bone from his throat. The wolf promised the crane that he would give him a big reward if he helped him. The crane agreed to help the wolf.

The crane shoved his head down the wolf's throat. With his long beak he removed the bone from the wolf's throat. When he had finished, he asked the wolf for his reward. The wolf laughed at him and said “You took ma big chance to shove your head down a wolf's throat to remove a bone. What other reward do you want?”

“I thought so” said the crane and flew away. “You cannot expect a reward when you serve the evil”.

4. JUPITER AND THE BEE

The queen bee had a great desire to give the mighty Jupiter some honey as a gift. She then started to work very hard to collect as much honeycombs as possible. When she thought she had gathered enough honeycombs, she departed for the Olympus mountains where Jupiter lived.

When she arrived there, she presented her honeycombs to the mighty Jupiter. He was so thrilled with the gift that he promised to give her anything she wished for. Immediately the queen bee asked Jupiter to give her a sting that she could use to kill anything that would steal her honey.

Jupiter was shocked that the queen bee would make such a nasty request. Because he could not withdraw his promise to the queen bee, he had to grant her the wish. He warned her that the sting would be fatal to her victims.

Just as the queen bee thanked Jupiter, he stopped her and said "The wound where the sting falls will only be fatal to you. The minute you have used your sting, it will be taken away from you and you shall die"

As a result of Jupiter's warning, the queen bee realized that a deadly wish has deadly consequences.

5. THE FOX AND THE CROW

One day, a crow sat in a tree with a piece of cheese in his mouth. A sly fox came by. He watched the crow and immediately wanted a piece of his cheese.

After a while, the fox could not think of any idea how to get hold of the piece of cheese. The fox screamed at the crow, "You are so pretty crow. Your feathers are glowing and you shine with beauty. I am sure you must have a pretty singing voice as your beauty shows it. Please sing me a song".

The crow was so full of himself when the fox complimented him that he began to sing. But, the stupid crow did not realize the clever plan of the fox was to get hold of the cheese. The cheese fell out of the crow's mouth and the fox immediately dived to pick up the cheese.

The fox was so proud that his clever plan had worked. He then told the crow "Do not be fooled by flattery".

6. THE WOLF AND THE LAMB

One day, a group of sheep and their lambs were grazing in the farmer's field. One of the lambs was exceptionally inquisitive so he wandered off on his own. While he was wandering around the world, he met a wolf. Now we know that wolves like the smell and flavour of lamb meat. The wolf immediately had the

desire to catch the lamb and eat him. He sat down to think of a plan. After a long while, he decided not to kill the lamb immediately. He must devise a plan first.

He then asked the lamb "Wasn't it you who insulted me so badly last year?"

"Not me" said the lamb. "Last year I wasn't even born".

The wolf kept on moaning. "Then it was you I saw in the pasture".

The lamb became worried and said, "No, it was definitely not me because this is the first time I tasted grass".

The wolf became very irritable and impatient because he really wanted to taste the lamb meat. He moaned further and said "Then it was you who drank water out of my well".

"Never" said the lamb. "I have never tasted water. I only drink milk from my mother from which I get my nutrients".

In his impatience the wolf grabbed the lamb and shouted "I don't care what you say, but I am having you for dinner." While the lamb struggled to get out of the wolf's grip, he thought, "A cruel animal will use any excuse to get his way"

7. THE OXEN AND THE DRIVER

Long, long ago a group of oxen were pulling a big wagon with a very heavy load. The load was so heavy that when the wheels turned it screeched and groaned.

The driver continued to ride. After a few hours, the driver became very agitated with the groaning and screeching of the wheels. He said "Wagon, why are you so noisy? It is the oxen that should make the noise. They are dragging the wagon and the heavy load. Nevertheless, they are the quietest and never complain.

The oxen heard the driver screaming and the one said to the other "It is the one that suffers the least that cries the hardest".

8. THE WOLF AND THE HOUSEDOG

One cold winter's night, wolf sat in his house alone feeling sorry for himself. He was so lonely and very hungry. He hunted for days but could not find anything to eat. Now he was so thin that he was only skin and bone. He said to himself "Tonight I have to find some food".

That night, while he was wandering around outside in the cold, he met a housedog. He watched the dog slyly and noticed that the dog's fur was so shiny and healthy. "You look like you have a wonderful life without struggles," said the wolf to the dog.

"My boss feeds me everyday" said the dog.

"What is a boss?" asked the wolf.

"A master is the man who owns me and where I live. He gives me all kinds of wonderful food like chicken bones, a choice of meat, cake and all kinds of wonderful delicacies. All I have to do is bark when a strange enters our yard," said the dog.

Wolf deducted that the dog must live a wonderful life. But then he saw a mark around the dog's neck and asked "What is that mark around your neck dog?" He then discovered that the dog is constantly tied with a chain around his neck. Wolf then walked away and decided that he really did not want to live such a life. Wolf then realized that there is nothing better than to be free.

9. THE SICK LION

Once upon a time, there was a very old lion. He was so old that he could not care for himself. He thought of a plan to get assistance in caring for himself. He then decided to cheat his friends in the forest. He notified all the animals in the forest that he was sick and they should come and visit him in his cave.

The news of the lion's illness traveled so fast that soon the animals came to visit him one by one. As they arrived, the lion ate them one by one. The fox was the only one that noticed that the animal kingdom in the forest was getting smaller and smaller. He investigated the case and found out that the lion was eating all his visitors. He then decided to visit the lion.

Fox did not go close to the entrance but decided to keep his distanced and screamed at the lion. "Mr. Lion, how do you feel today?"

The lion answered, "A bit better. But, why don't you come in and stay with me for a while?"

"Thank you" said the fox "but, not today. I see that there are many footsteps that enter the cave but none that return". The lion did not answer.

Fox thought, "I learnt a long time ago that the wise can learn from the misfortune of others".

10. THE DOG AND THE MANGER

Long, long ago there was a very tired dog. He was looking for a place to sleep. He was so tired of looking that he became very sleepy. Then he came upon a stable. There he saw a bale of hay. He realized that the stable was empty and very comfortable. Then he decided that this was just the place to rest.

Hours later, he heard a terrible noise. The dog woke up immediately. There he saw a mule that was coming home after a hard day's work. He was very hungry and wanted to eat some hay. As the mule came closer to the bale of hay, the dog wanted to bite him. The mule struggled to get to the hay but the dog would not allow him to do so. The patient mule knew that the selfish dog did not want the mule to eat the hay. He also realized that the dog was not about to eat the hay.

Eventually the patient mule said "You do not want me to have my dinner and you won't allow me to eat the hay. Do not deny other what you cannot have yourself".

11. THE WOLF IN SHEEP'S CLOTHES

Once upon a time a wolf went into the forest to hunt for his dinner. While he was out hunting, he came across a sheepskin. He picked up the skin and took it home. He picked up the skin and tried it on. He looked at himself and said "Now I can graze among the sheep in the pasture and choose the best sheep for dinner. Nobody will know that I am a wolf".

The next day the wolf put on his sheepskin and went into the pasture to graze with the sheep. Nobody knew about the sly plan of the wolf and nobody recognized him as a wolf. Later that afternoon, the shepherd came to visit the sheep. He chose the best sheep for his dinner. Unfortunately for the wolf, the shepherd chose him. The shepherd did not realize it was a "wolf-sheep". He took the sheep home and killed it. He was so shocked when he realized that it was not a sheep but a wolf. Softly the shepherd whispered to himself "Those who plan to harm other, are often harmed themselves.

12. THE FOX AND THE GRAPES

One day a fox went for a walk in the forest. There he saw a delicious grape vine. The grapes on the vine were ripe and big. He picked up a grape from the ground and tasted it. It was so sweet. The fox wanted to have more and decided to pick some to take home. Unfortunately, the grapes were so high up that he could not reach them. He had to work out a plan to reach the grapes.

He tried to climb up the vine but it was so slippery that he kept on slipping down the vine before he could reach the grapes. He tried and tried until he was so tired and gave up.

The fox left the forest in a raging fit. The fox was so angry because he could not get the grapes. Softly he said to himself "The grapes must be sour".

We learn that it is easy to dislike something when you cannot get it.

13. THE GOOSE AND THE GOLDEN EGG

One bright summer's day a farmer rose early to feed the chickens. While he was there, he decided to gather all the eggs. When he got to the goose's nest he saw that the goose had laid a golden egg. He was so shocked that when he arrived at his house he was shaking. He called his wife and showed her the golden egg. "Wife, wife " he said, "Look what I found in the goose's nest. It's a golden egg. We are rich now".

Later in the morning, the farmer went to the market to sell the precious egg. He got a good price for the egg. The following morning when he went to gather the eggs, he found another golden egg in the goose's nest. Once again he went to the market to sell the egg.

Every morning when the farmer went to collect the eggs, he found a golden egg in the goose's nest. The farmer and his wife became very rich. But the more money the farmer and his wife made, the more they wanted. Now they became greedy.

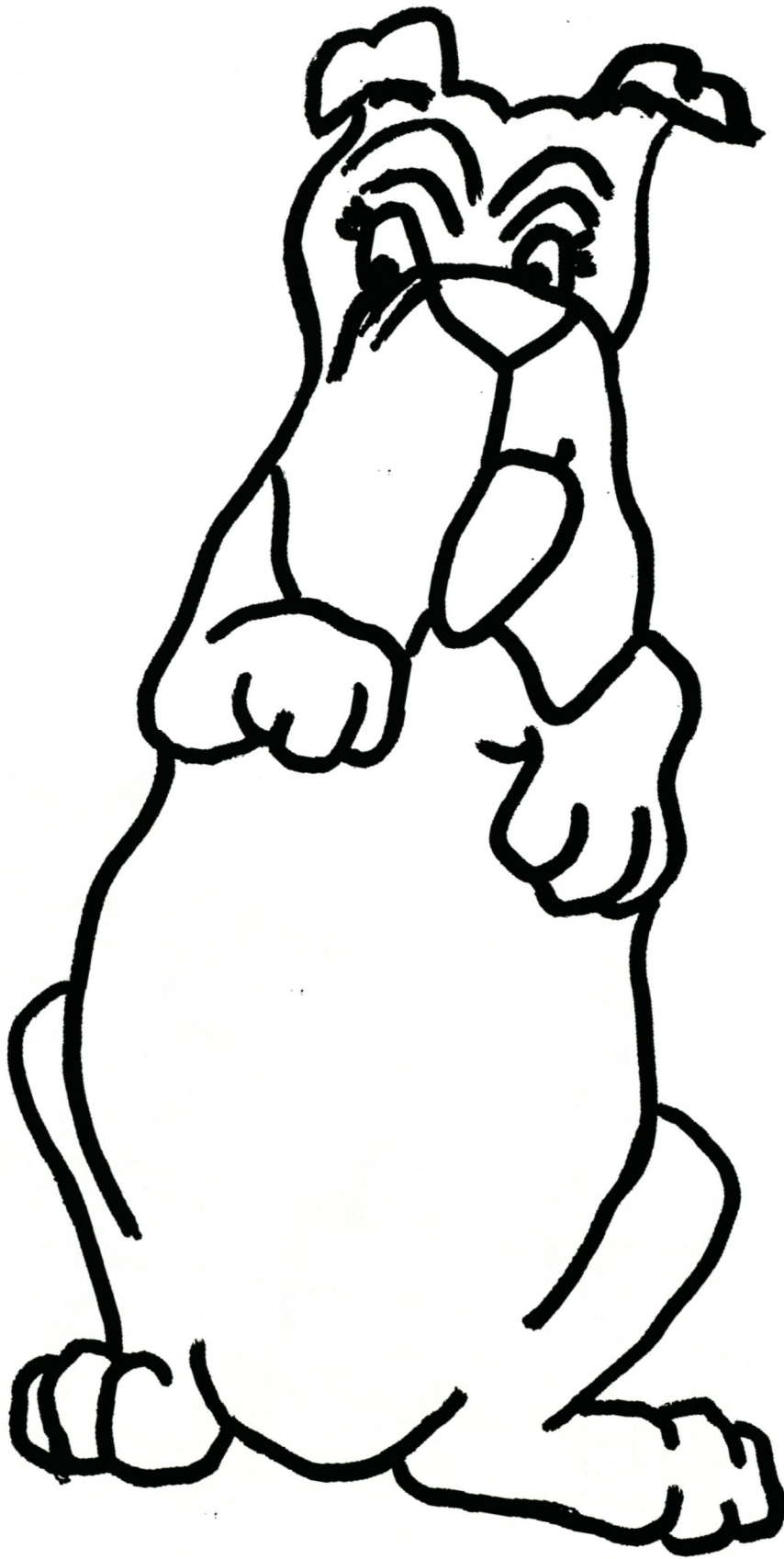
One day the farmer decided to kill the goose. He wanted to take all the riches out of the goose and sell it. He was not satisfied with the daily golden egg. So he grabbed the goose and chopped his head off. His wife ran towards him and screamed "You idiot! Don't you know that when you get too greedy, you lose everything".

Appendix B

Pictures of Fable Characters

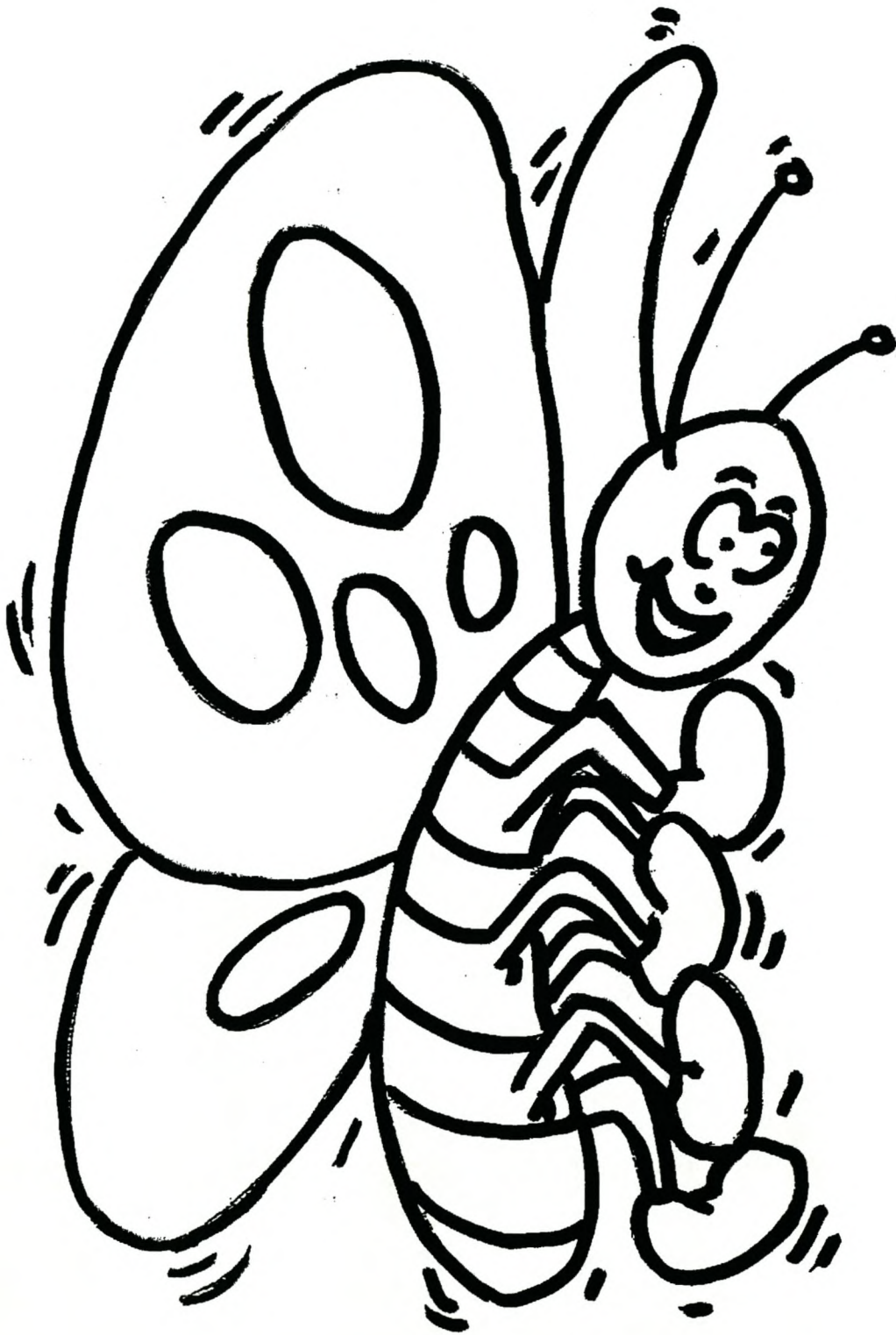
1.

327



M. Paulsen

2.



3.



4.



Appendix C

Educator's Observation Chart

Date:

Group:

Fill in the name of the learners according to the areas in which they are making progress.

Behaviour observed	Name of learner	Name of learner	Name of learner	Name of learner	Name of learner
Listen to the other learners in the group					
Speak so that all group members can listen					
Give each learner a turn to speak					
Contributes in the group					
Is able to participate in discussions					

Appendix D
Self-Evaluation Sheet

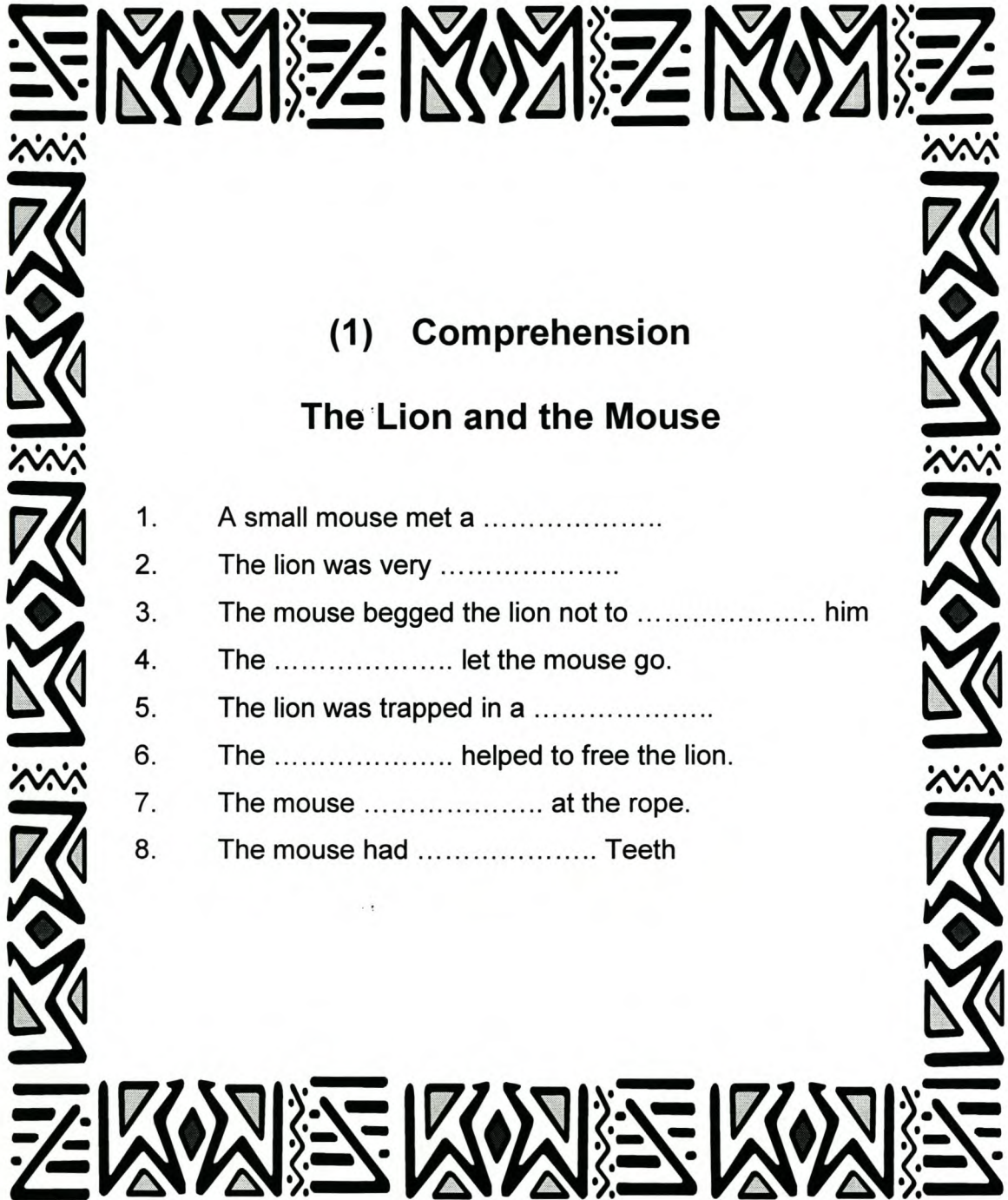
Make a dot next to the sentence that describes what you did in your group

1. I made my own contributions during the discussions.
2. I made valuable contributions so that the group could reach their goal.
3. I helped my group to clean up after the lesson.
4. I waited until other learners had spoken before I presented my ideas.
5. I listened to other learners' ideas.
6. I encouraged other learners to participate and contribute.
7. I took other learners' ideas in consideration.
8. I worked well together with my group.

Appendix E

Comprehension Exercises

1.

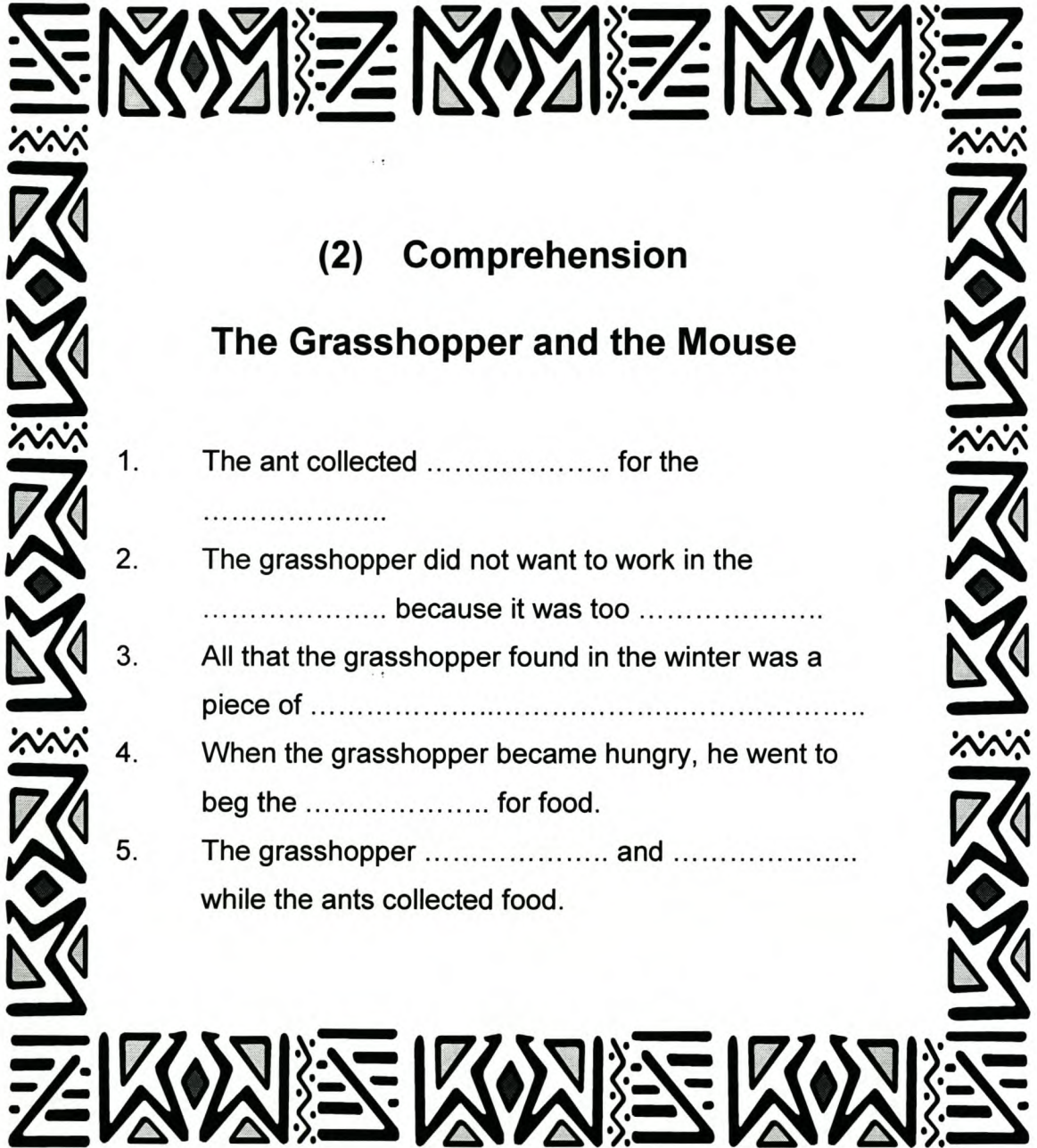


(1) Comprehension

The Lion and the Mouse

1. A small mouse met a
2. The lion was very
3. The mouse begged the lion not to him
4. The let the mouse go.
5. The lion was trapped in a
6. The helped to free the lion.
7. The mouse at the rope.
8. The mouse had Teeth

2.

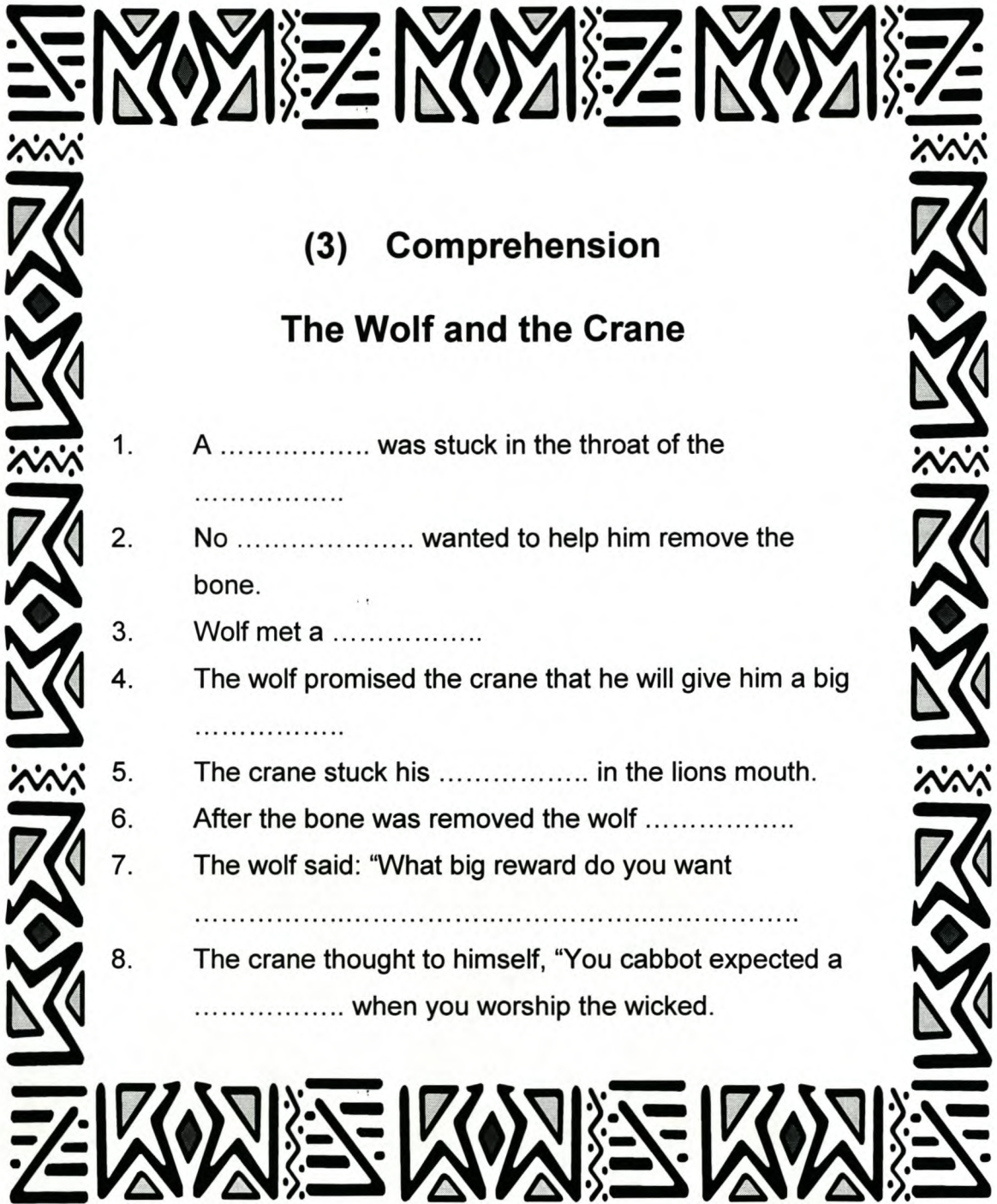


(2) Comprehension

The Grasshopper and the Mouse

1. The ant collected for the
.....
2. The grasshopper did not want to work in the
..... because it was too
3. All that the grasshopper found in the winter was a
piece of
4. When the grasshopper became hungry, he went to
beg the for food.
5. The grasshopper and
while the ants collected food.

3.

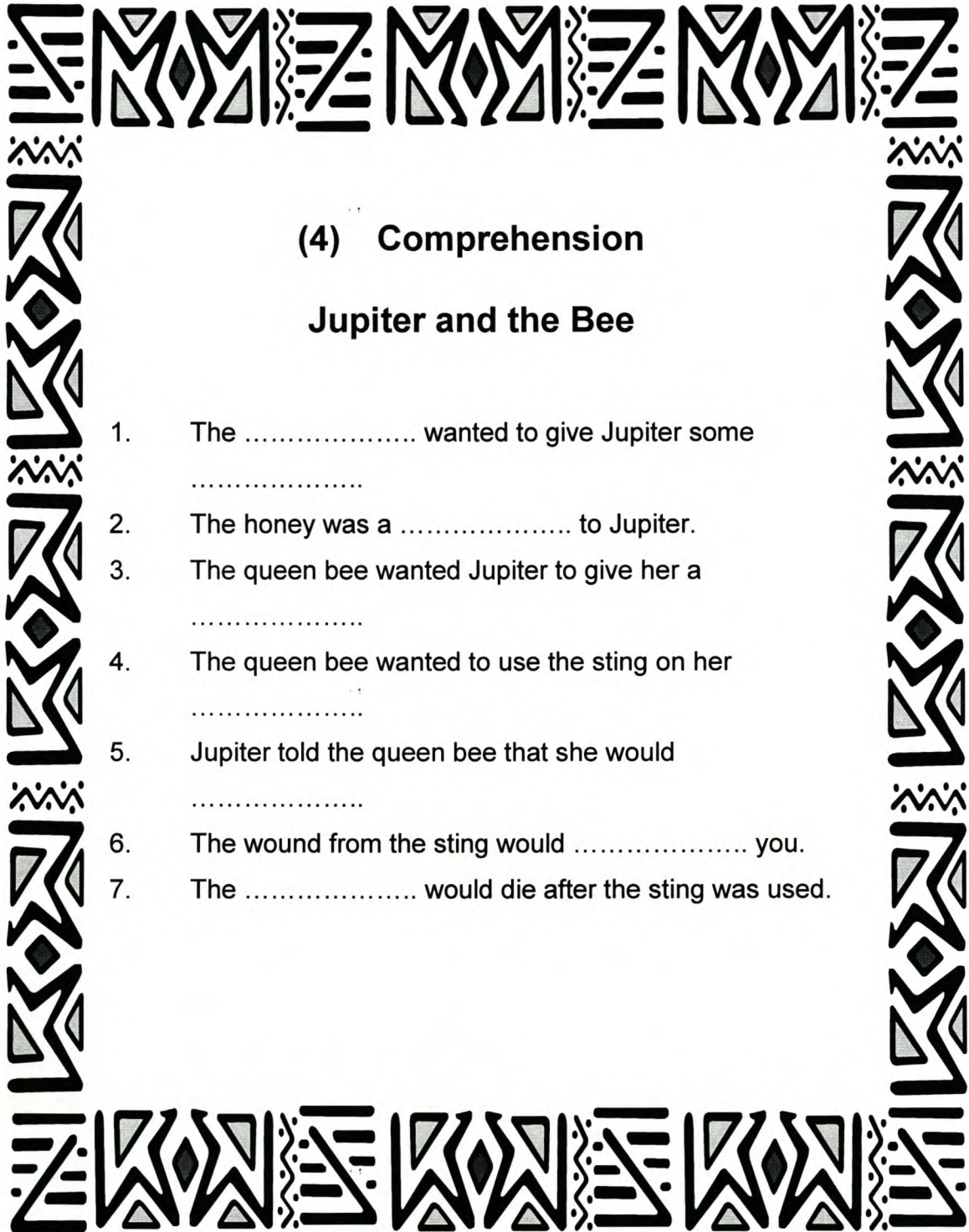


(3) Comprehension

The Wolf and the Crane

1. A was stuck in the throat of the
.....
2. No wanted to help him remove the
bone.
3. Wolf met a
4. The wolf promised the crane that he will give him a big
.....
5. The crane stuck his in the lions mouth.
6. After the bone was removed the wolf
7. The wolf said: "What big reward do you want
.....
8. The crane thought to himself, "You cabbot expected a
..... when you worship the wicked.

4.

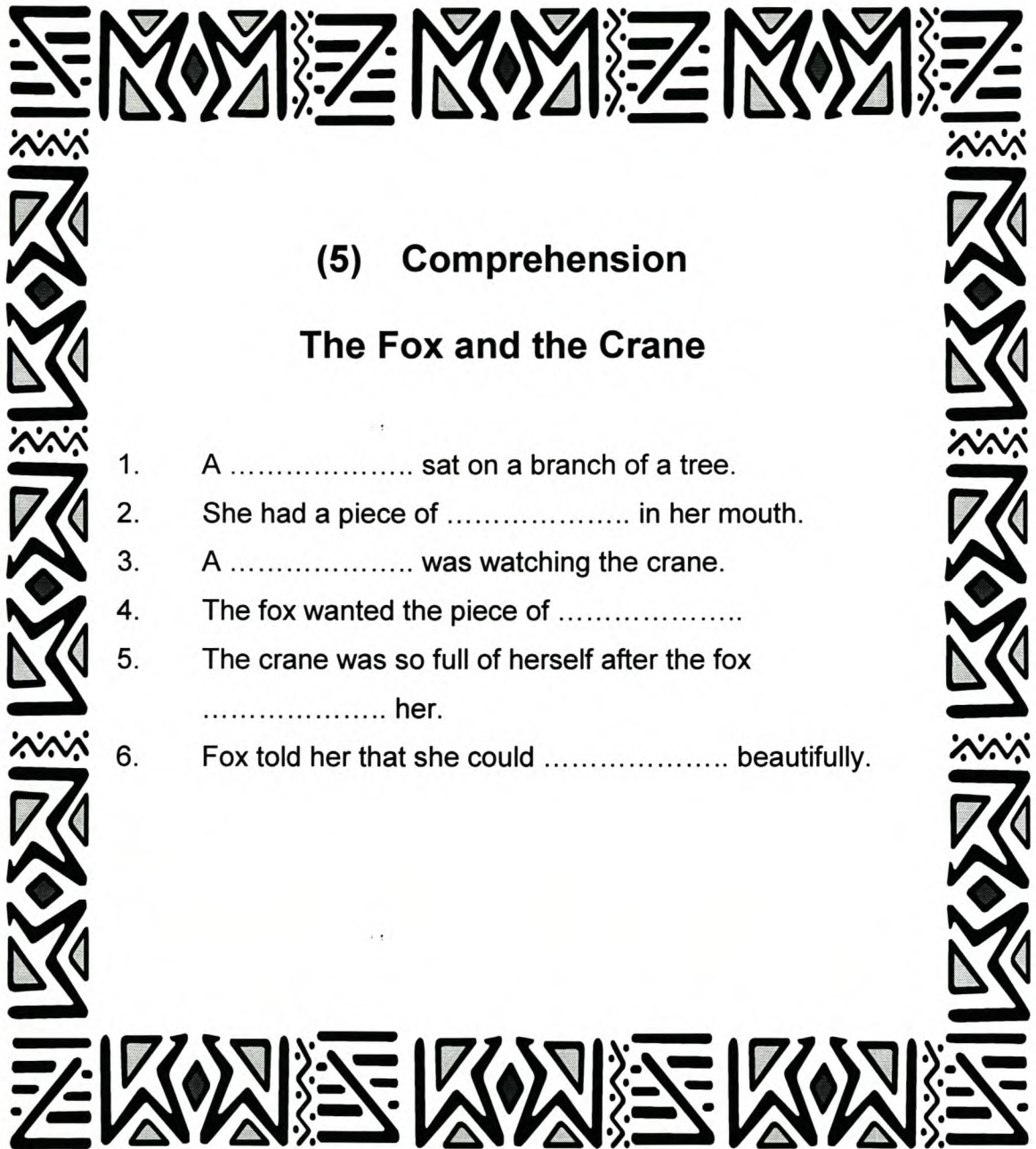


(4) Comprehension

Jupiter and the Bee

1. The wanted to give Jupiter some
2. The honey was a to Jupiter.
3. The queen bee wanted Jupiter to give her a
4. The queen bee wanted to use the sting on her
5. Jupiter told the queen bee that she would
6. The wound from the sting would you.
7. The would die after the sting was used.

5.

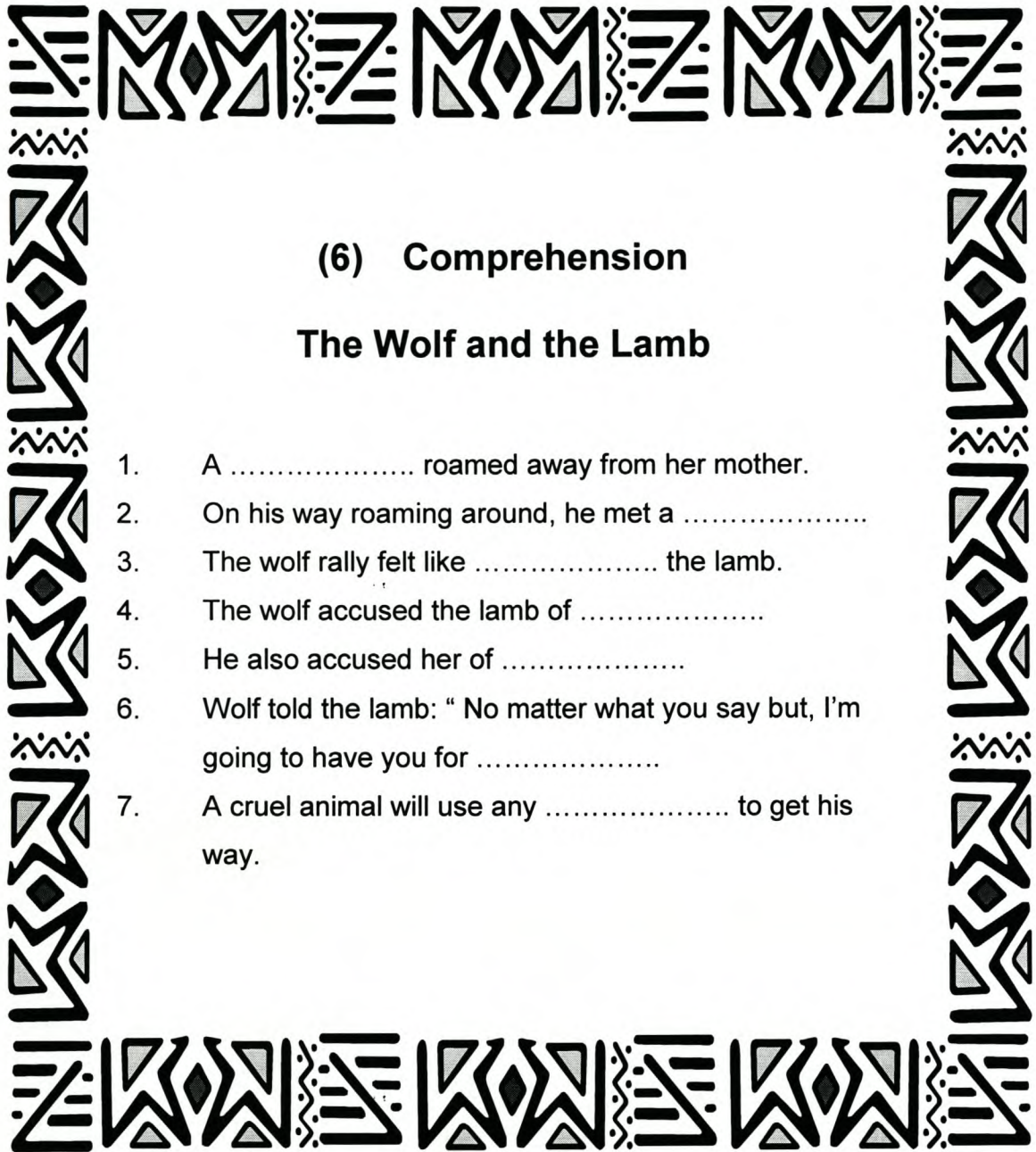


(5) Comprehension

The Fox and the Crane

1. A sat on a branch of a tree.
2. She had a piece of in her mouth.
3. A was watching the crane.
4. The fox wanted the piece of
5. The crane was so full of herself after the fox
..... her.
6. Fox told her that she could beautifully.

6.

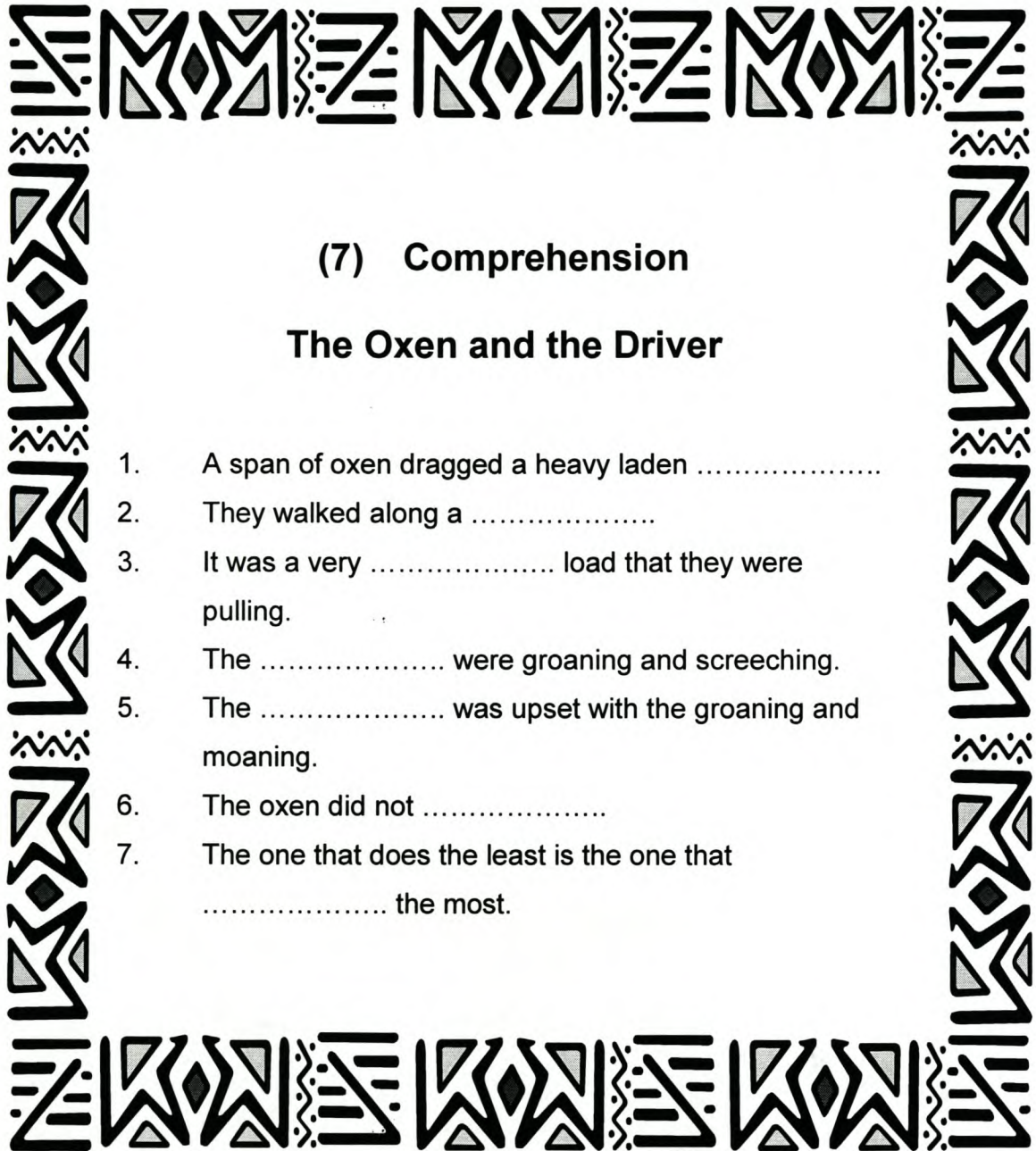


(6) Comprehension

The Wolf and the Lamb

1. A roamed away from her mother.
2. On his way roaming around, he met a
3. The wolf really felt like the lamb.
4. The wolf accused the lamb of
5. He also accused her of
6. Wolf told the lamb: " No matter what you say but, I'm going to have you for"
7. A cruel animal will use any to get his way.

7.

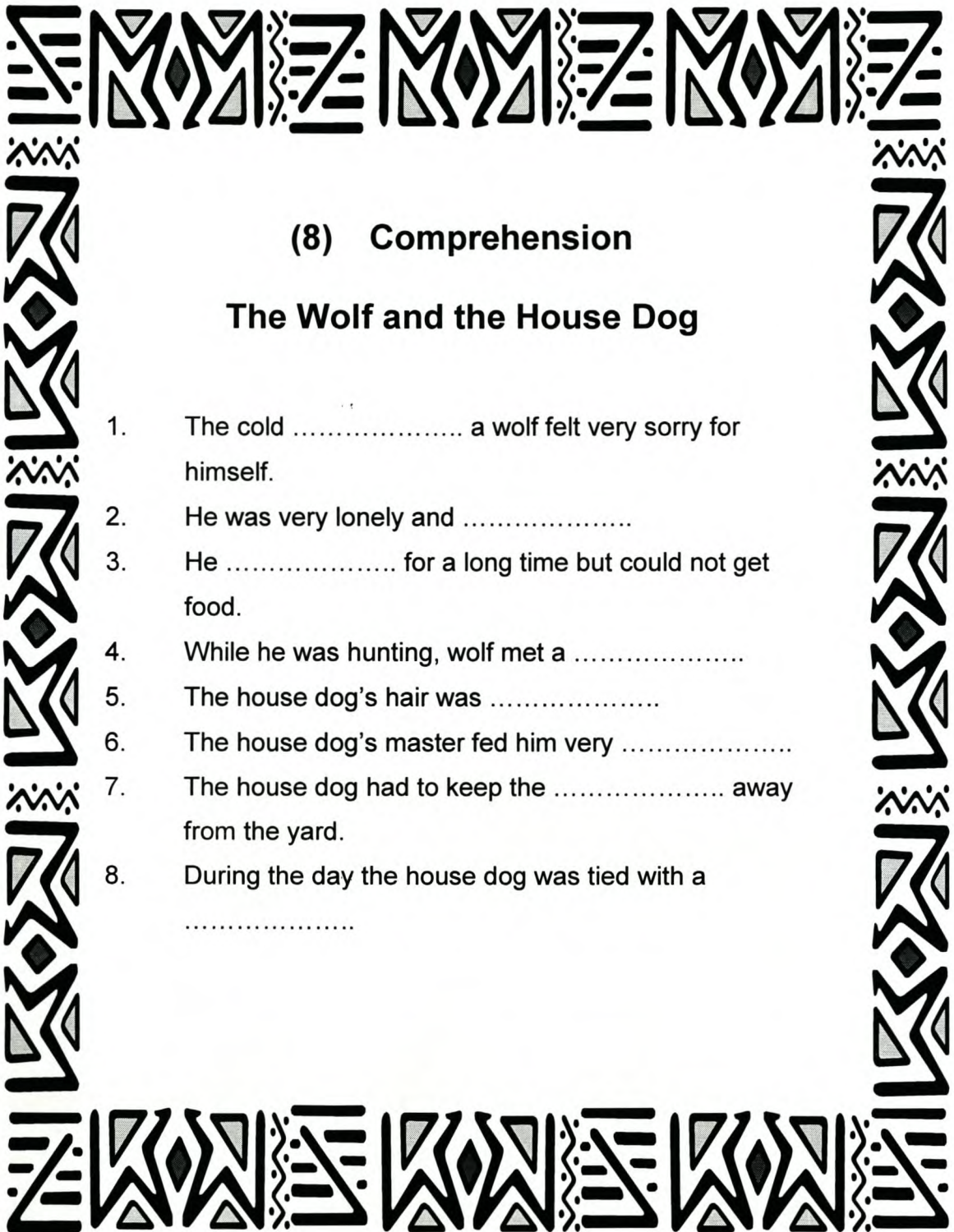


(7) Comprehension

The Oxen and the Driver

1. A span of oxen dragged a heavy laden
2. They walked along a
3. It was a very load that they were pulling.
4. The were groaning and screeching.
5. The was upset with the groaning and moaning.
6. The oxen did not
7. The one that does the least is the one that the most.

8.



(8) Comprehension

The Wolf and the House Dog

1. The cold a wolf felt very sorry for himself.
2. He was very lonely and
3. He for a long time but could not get food.
4. While he was hunting, wolf met a
5. The house dog's hair was
6. The house dog's master fed him very
7. The house dog had to keep the away from the yard.
8. During the day the house dog was tied with a

Appendix F
Research Sheet

Aesop's Fables

Do some research. Use any types of resources you can find in the library from books, encyclopaedia, etc. See if there are any other people you can find that have worked with fables. Now answer the following questions.

1. Who was Aesop?

.....
.....
.....

2. Where did he live?

.....
.....
.....

3. When did he live there?

.....
.....
.....

4. What does Aesop have to do with fables?

.....
.....
.....

Appendix G

Educator's Evaluation Sheet

Evaluating of Written Work

Category	Features
Content	<ul style="list-style-type: none">• Is there a relationship between the content and the theme?• Creativity• Purpose
Organization	<ul style="list-style-type: none">• Continuity• Is there a relationship between the ideas?• Use of paragraphs• Clear ideas
Use of Language	<ul style="list-style-type: none">• Are punctuation marks used?• Is the grammar correct• Is there a good use of tenses
Use of Vocabulary	<ul style="list-style-type: none">• Are vocabulary words from the fables used• Did the learners use their own vocabulary• Is there correct use of vocabulary• Correct spelling
The Use of Idioms/morals	<ul style="list-style-type: none">• Did the learners use morals from the fables

Appendix H

Self Evaluation Sheet for Learners

Self Evaluation Sheet for Learners

	Low				High
1. I did not have a turn in the group.	1	2	3	4	5
2. I put up my hand when I wanted to say something.	1	2	3	4	5
3. I waited to take my turn.	1	2	3	4	5
4. I worked together with the group members	1	2	3	4	5
5. We completed our assignments	1	2	3	4	5
6. I contributed to my group discussion	1	2	3	4	5

What I can do to improve

.....

.....

.....

Educator's Observations

.....

.....

.....

Appendix I

Do you Remember your Fables

Do you Remember your Fables?**From the list below fill in the words that are left out.**

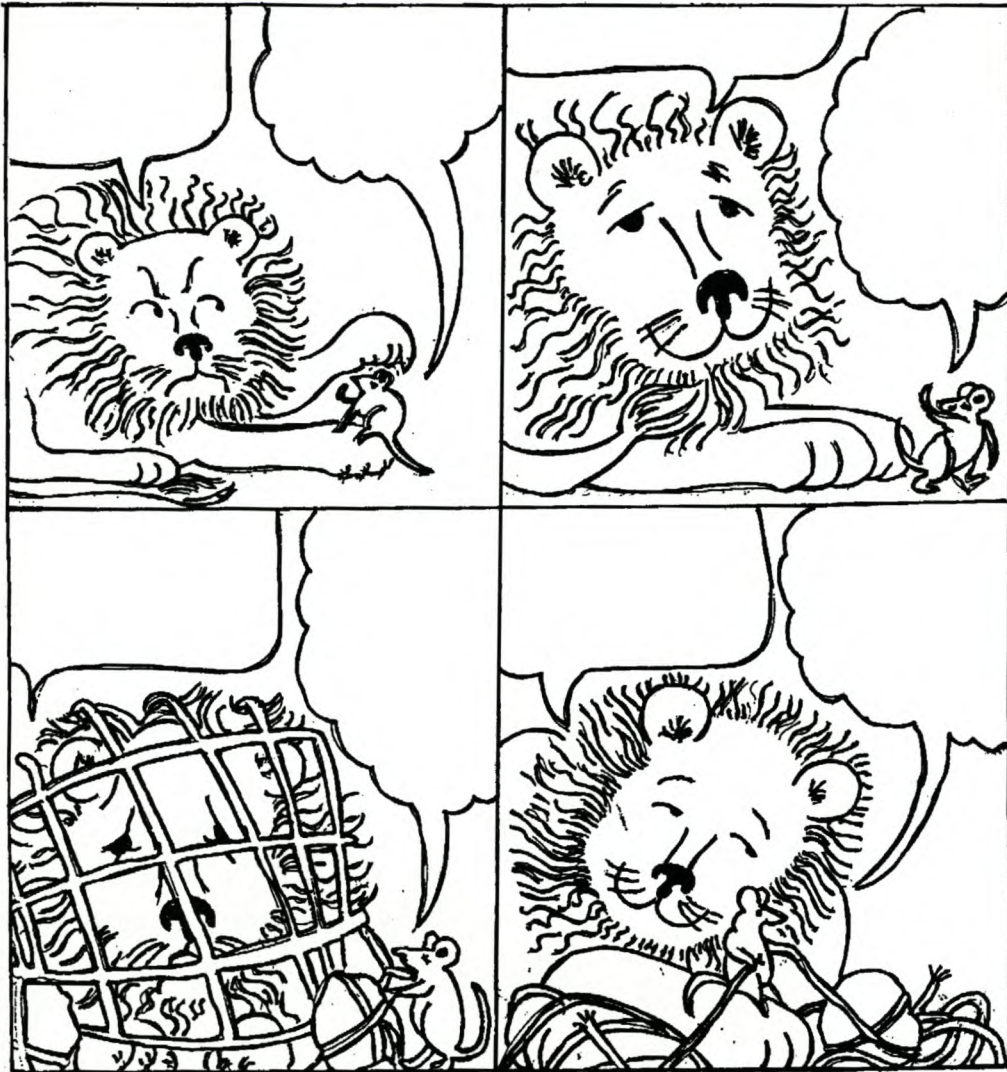
1. The helped the
2. The housedog met a
3. The had a In his throat.
4. The laid a egg.
5. The pulled a heavy load on the
6. The fox was too to pick the grapes in the
7. The wanted to give Jupiter as a present.
8. The did not want the mule to eat the

fox	forest
goose	short
mouse	golden
hay	lion
wagon	dog
bone	wolf

Appendix J

Write the Dialogue

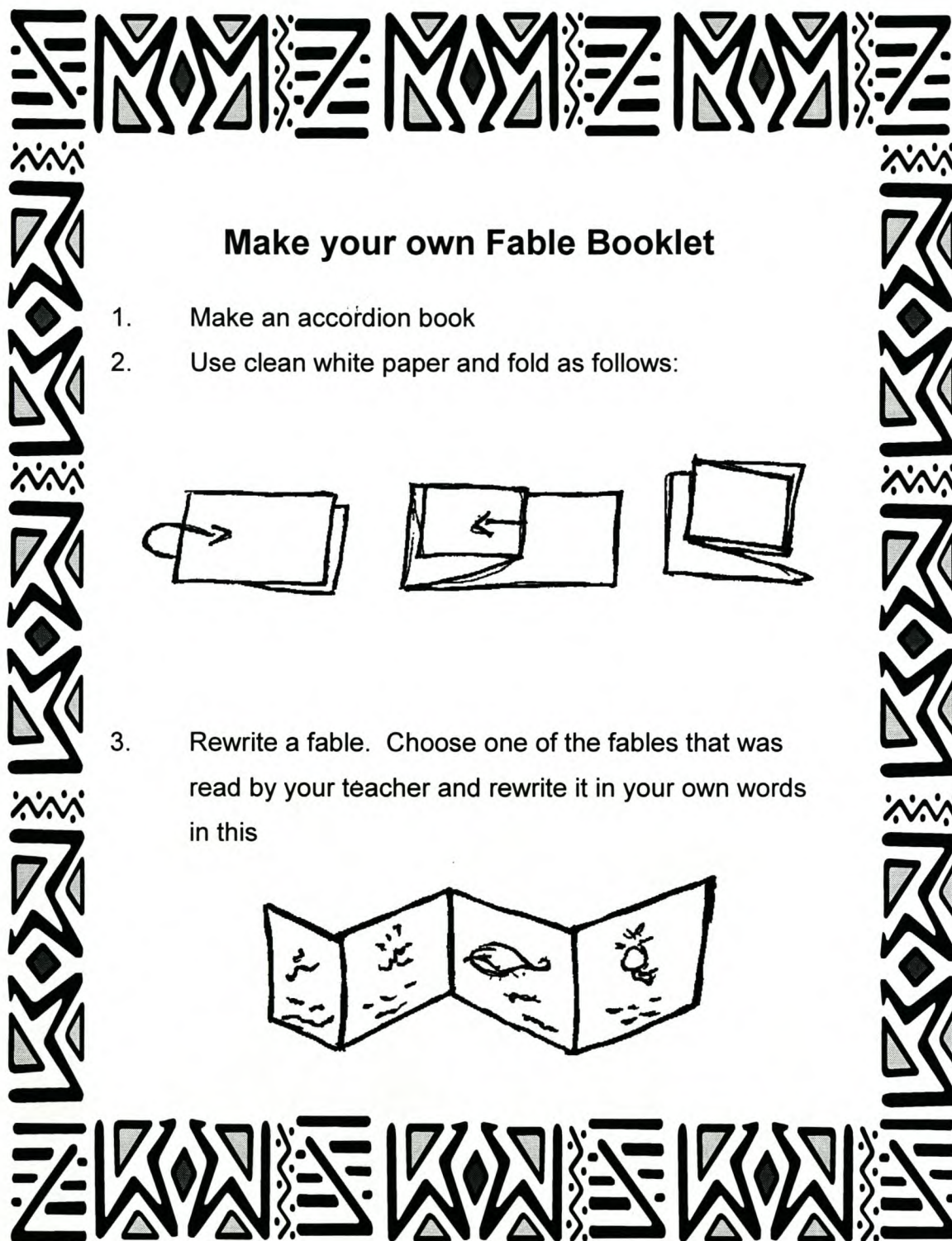
What did the Mouse say to the Lion?



Appendix K

Activity

Make your own Fable Booklet



Appendix L

Write a Story

The Clever Fox

Write a story about: The Clever Fox



Appendix M

Final Evaluation

Final Evaluation

1. Did you enjoy this theme? Why?

.....
.....

2. What was the best part of this theme?

.....
.....

3. Which part of this theme did you enjoy the most?

.....
.....

4. Why did you enjoy this?

.....
.....

5. How can we improve this theme?

.....
.....

6. What was the best part in working with the team?

.....
.....

7. What was the bad part in working with a team?

.....
.....

8. How can we change the team to be more enjoyable?

.....
.....

Appendix N
Means of Transport

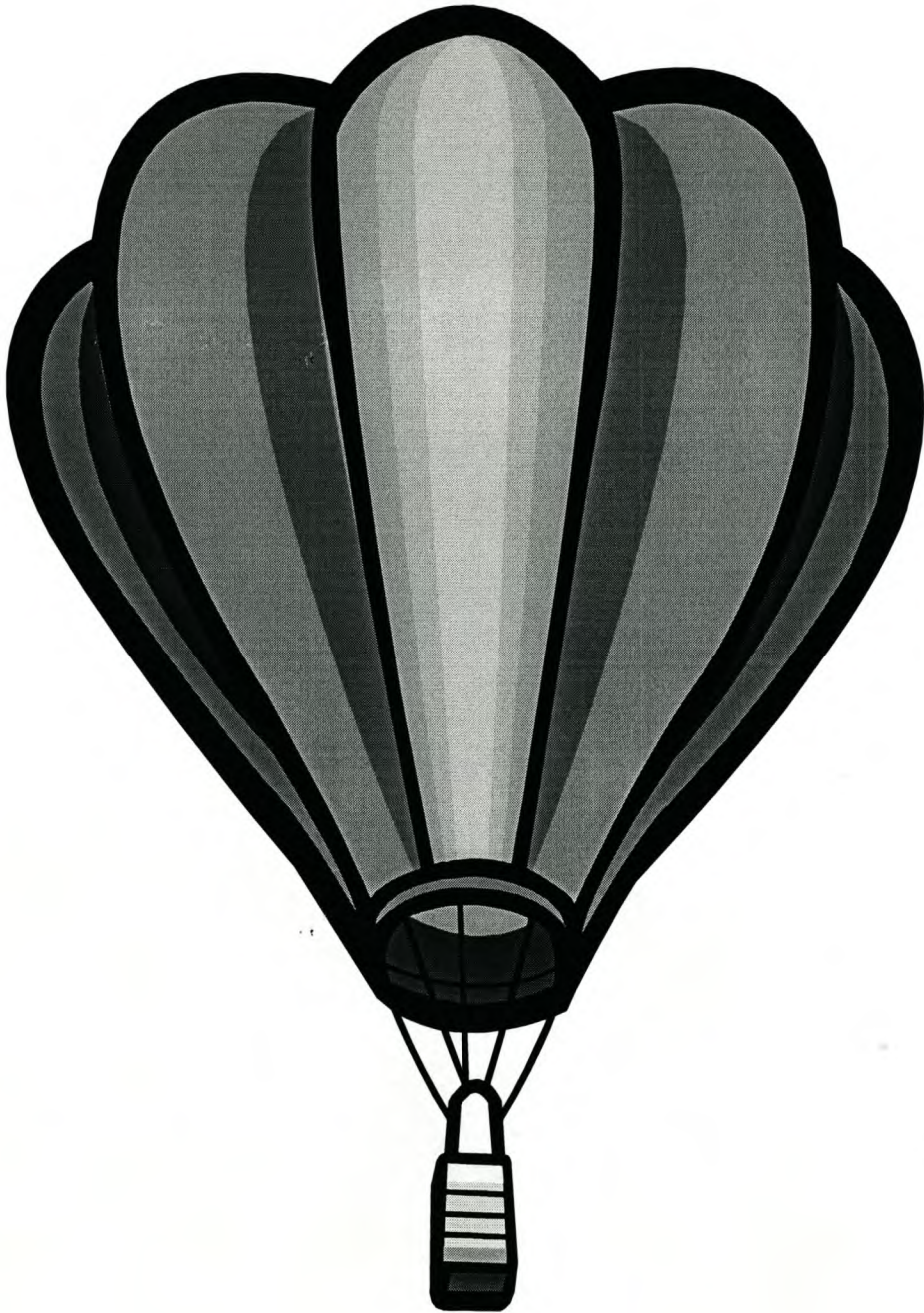
1.



2.



3.



4.



5.



Appendix O
Evaluating Vocabulary

Vocabulary – Quiz

Name:

Date:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Possible words: automobile, lorry, airplane, bus, jet, yacht,
ocean, street, horse, buggy, bicycle, transport,
train, coach, pedal, engine, motor, car.

Appendix P
Grammar Exercises

Fill in the Antonyms, Synonyms or Homonyms**Write a word that means the same for:**

bicycle lorry

baby carriage bus

car boat.....

Write opposites for the following words:

Walk top.....

Wet push

upstairs in the bus

inside the car

at the back of the lorry

Fill in the homonyms – words that sound the same but are spelt differently:

1. The ship sails on the..... (see; sea).
2. He (red, read) the advertisement for the car.
3. The conductor on the train (blue; blew) the whistle.
4. I saw three ships go sailing (bye; by).
5. (Two, Too, To) men boarded the bus in Bloemfontein.

Appendix Q

The Educator's Final Feedback to the Group

Group:

Members of the Group:		
------------------------------	--	--

--	--	--

--	--	--

1. The written/oral report had an introduction, and reported the data clearly.

1	2	3	4	5
---	---	---	---	---

2. The written/oral report had a body that clearly addressed the theme.

1	2	3	4	5
---	---	---	---	---

3. The written/oral report had an ending that summarized the theme/topic.

1	2	3	4	5
---	---	---	---	---

4. The written/oral report was supported by material that related to the theme/topic.

1	2	3	4	5
---	---	---	---	---

5. The display of visuals supported the theme/topic.

1	2	3	4	5
---	---	---	---	---

6. The group learning about this theme/topic.

1 = very good	2 = good	3 = mediocre	4 = needs improvement
---------------	----------	--------------	-----------------------

Other Observations:

.....

.....

Appendix R
Self-Evaluation of Members of the Group

How did I help my group in making decisions?

Name:

Date:

Group:

1. What contributions did I make towards the final decisions in the group?

.....
.....
.....
.....

2. What did I do to help my group?

.....
.....
.....
.....

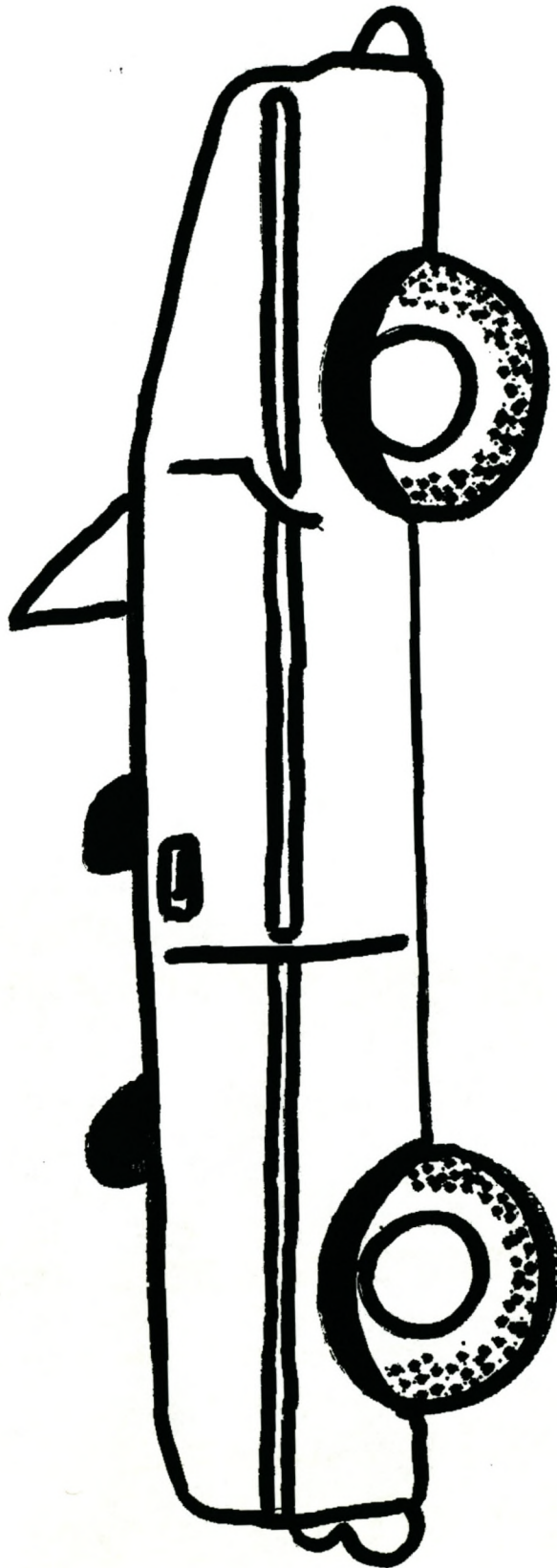
3. How did your contribution help in the decision making?

.....
.....
.....
.....

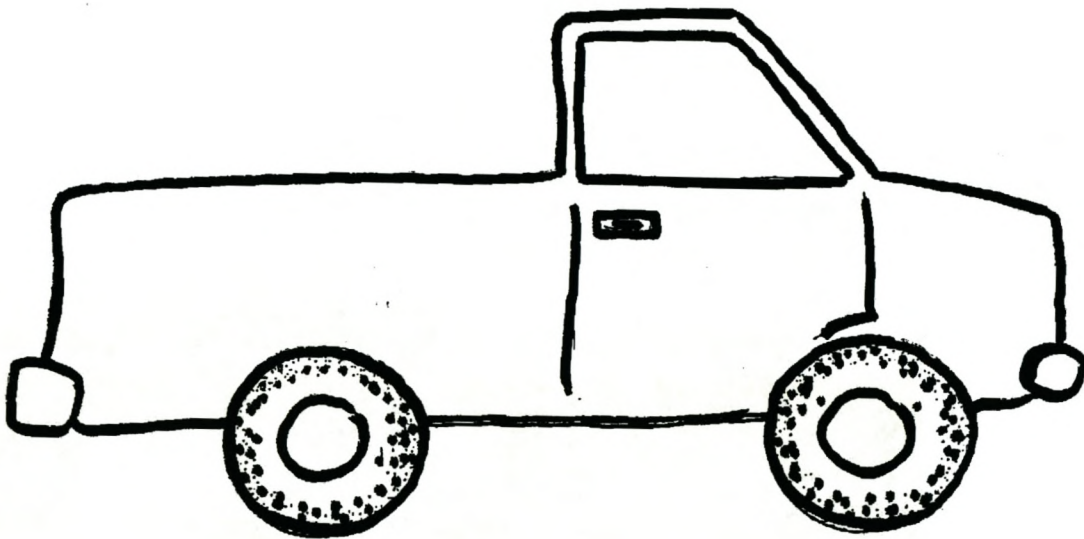
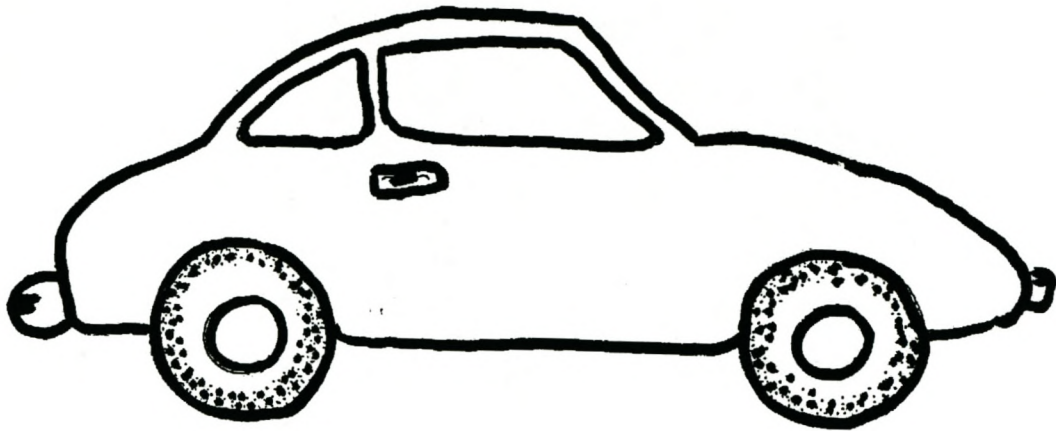
Appendix S

Shape of Cars

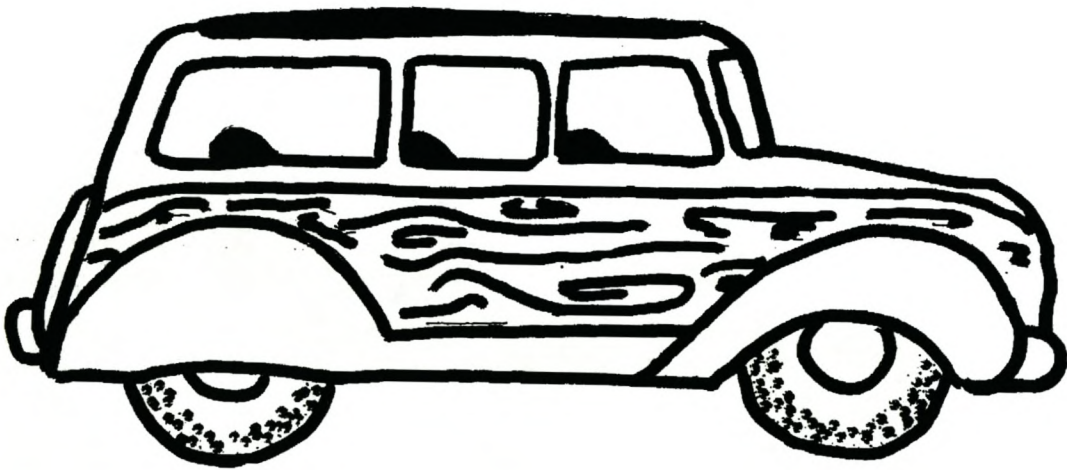
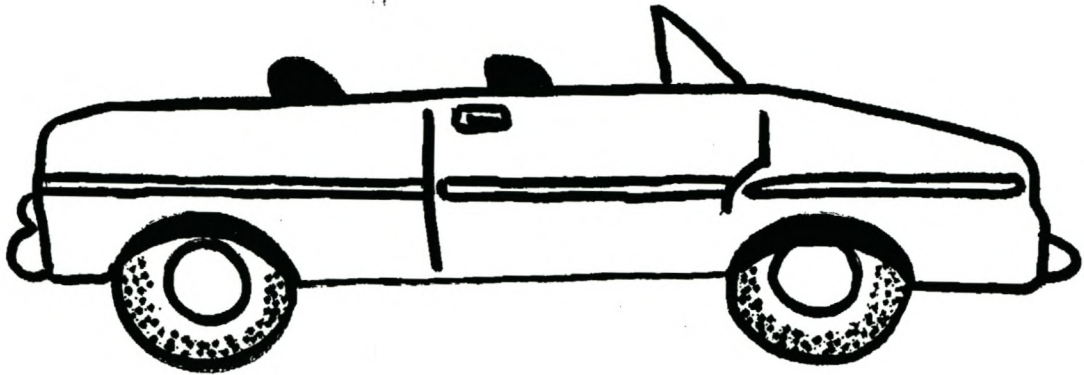
1.



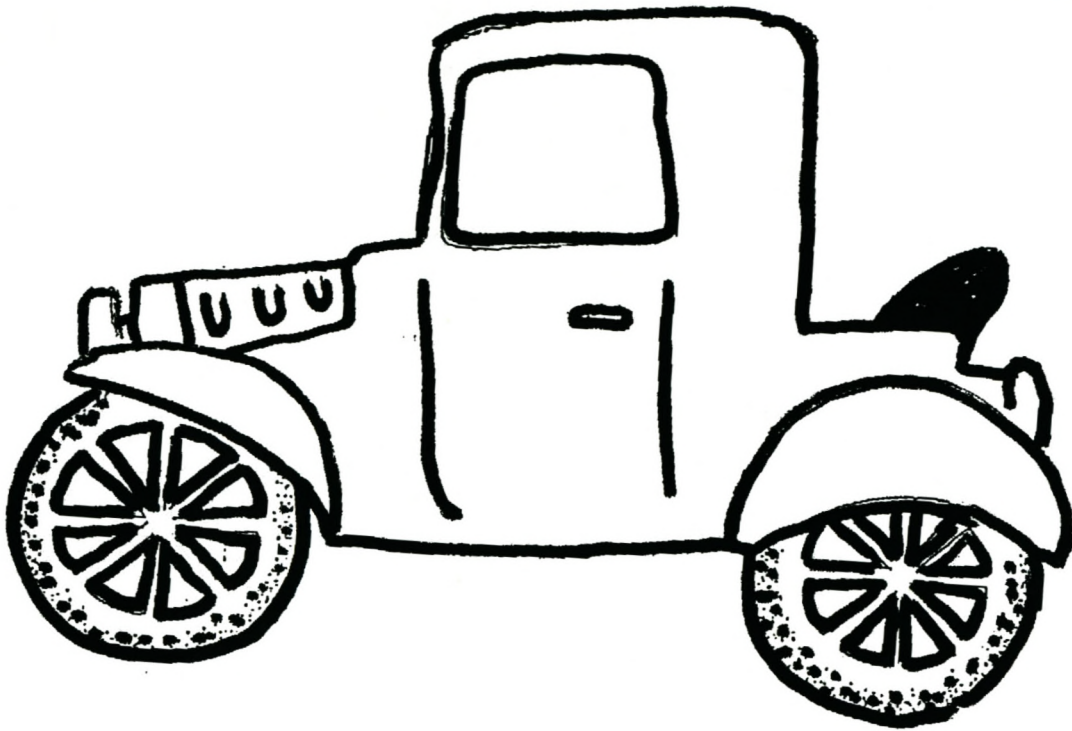
2.



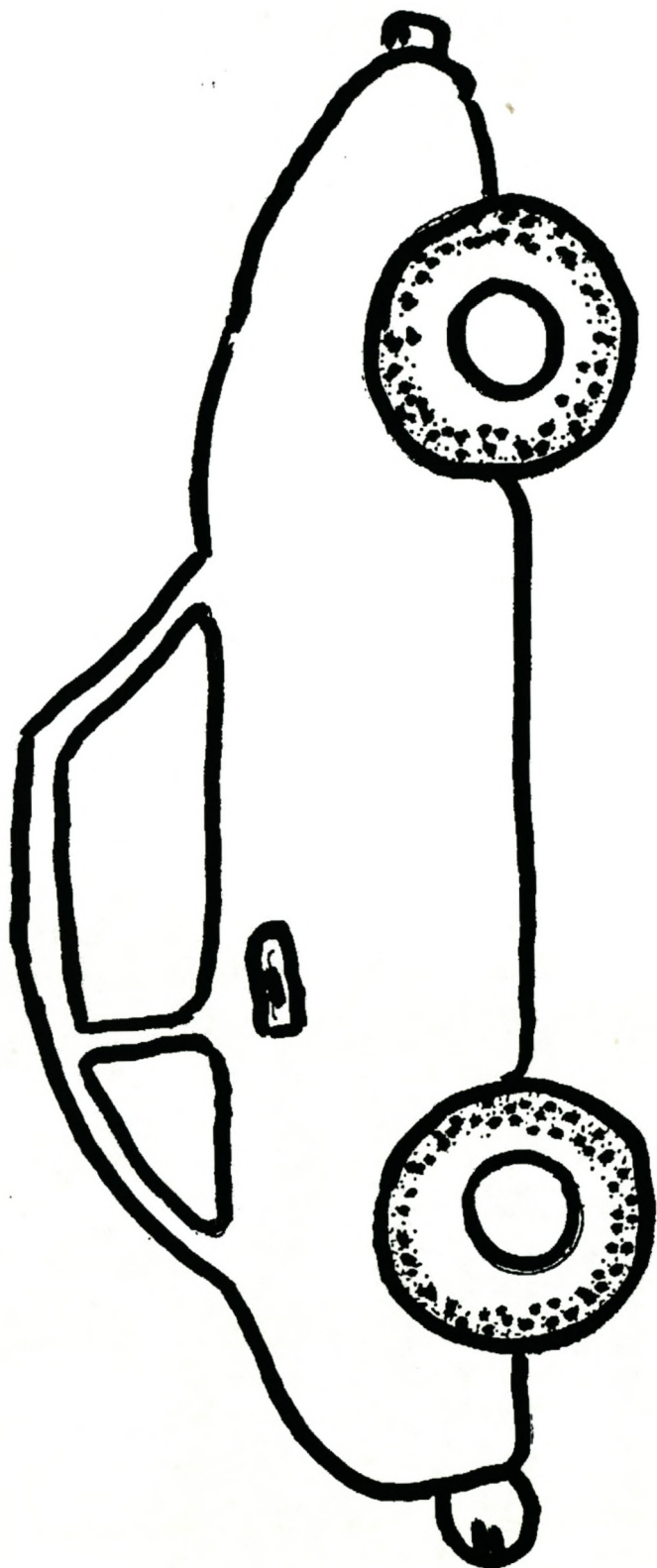
3.



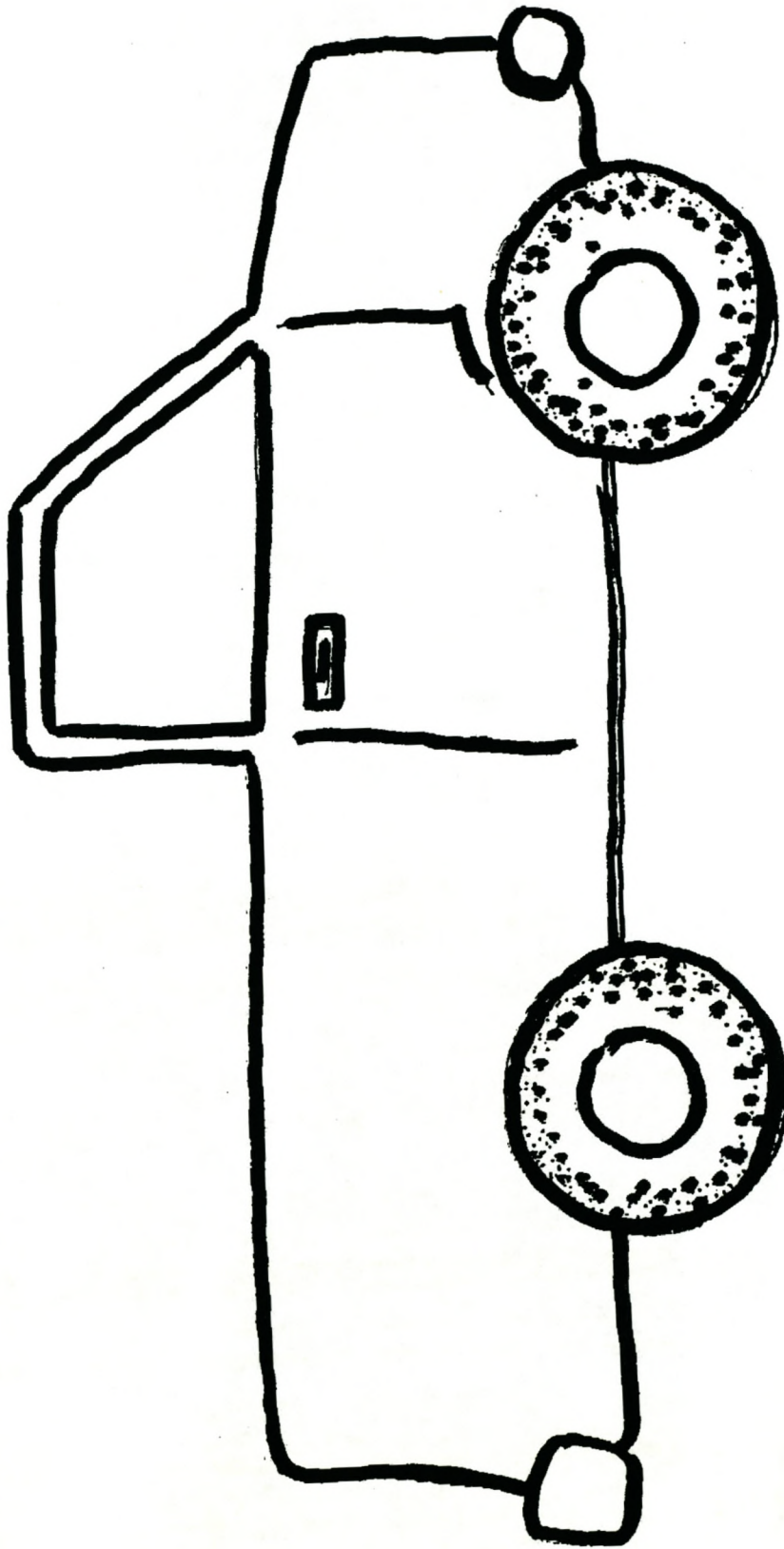
4.



5.

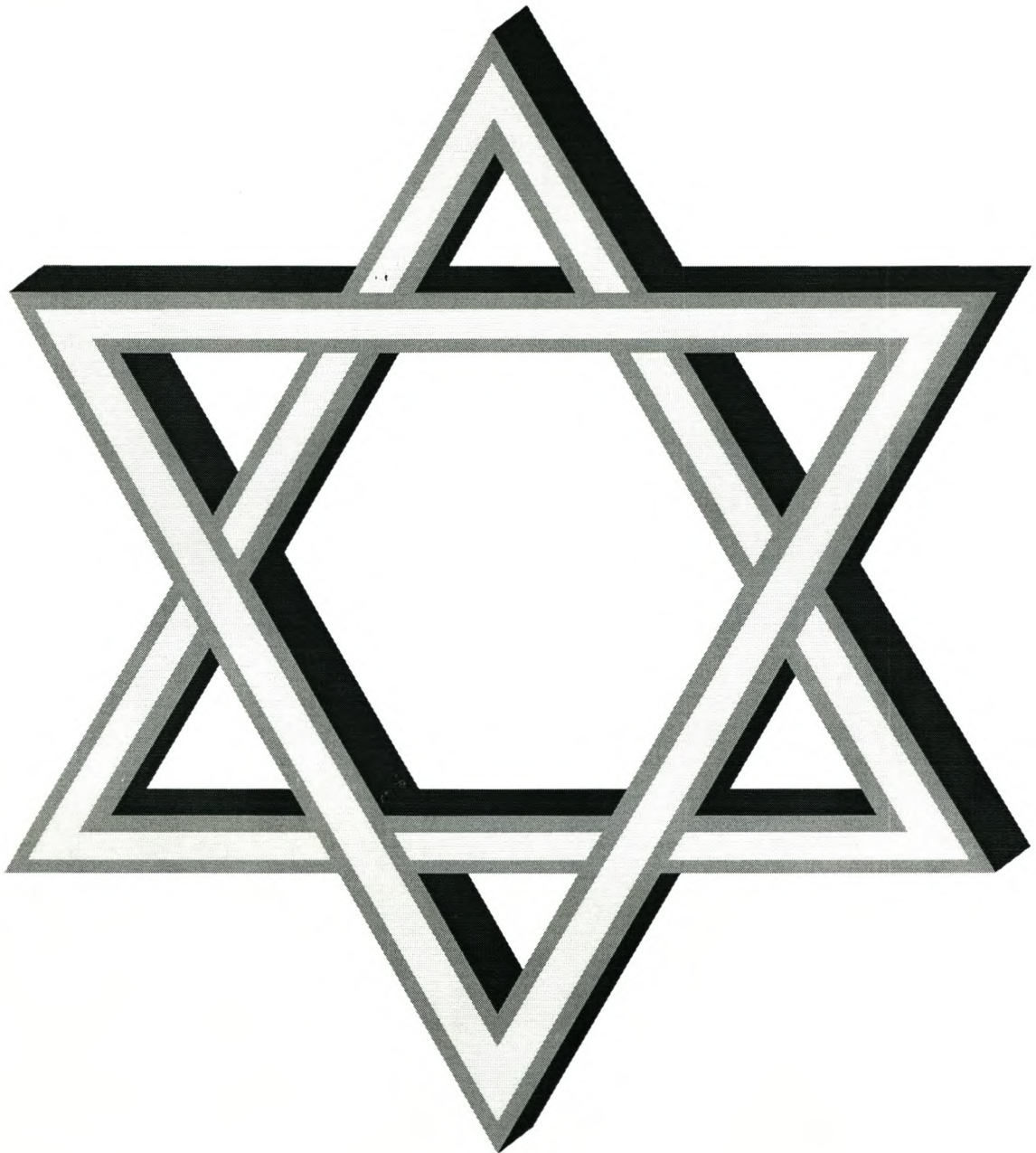


6.



Appendix T
Shapes in the Universe

1. Star



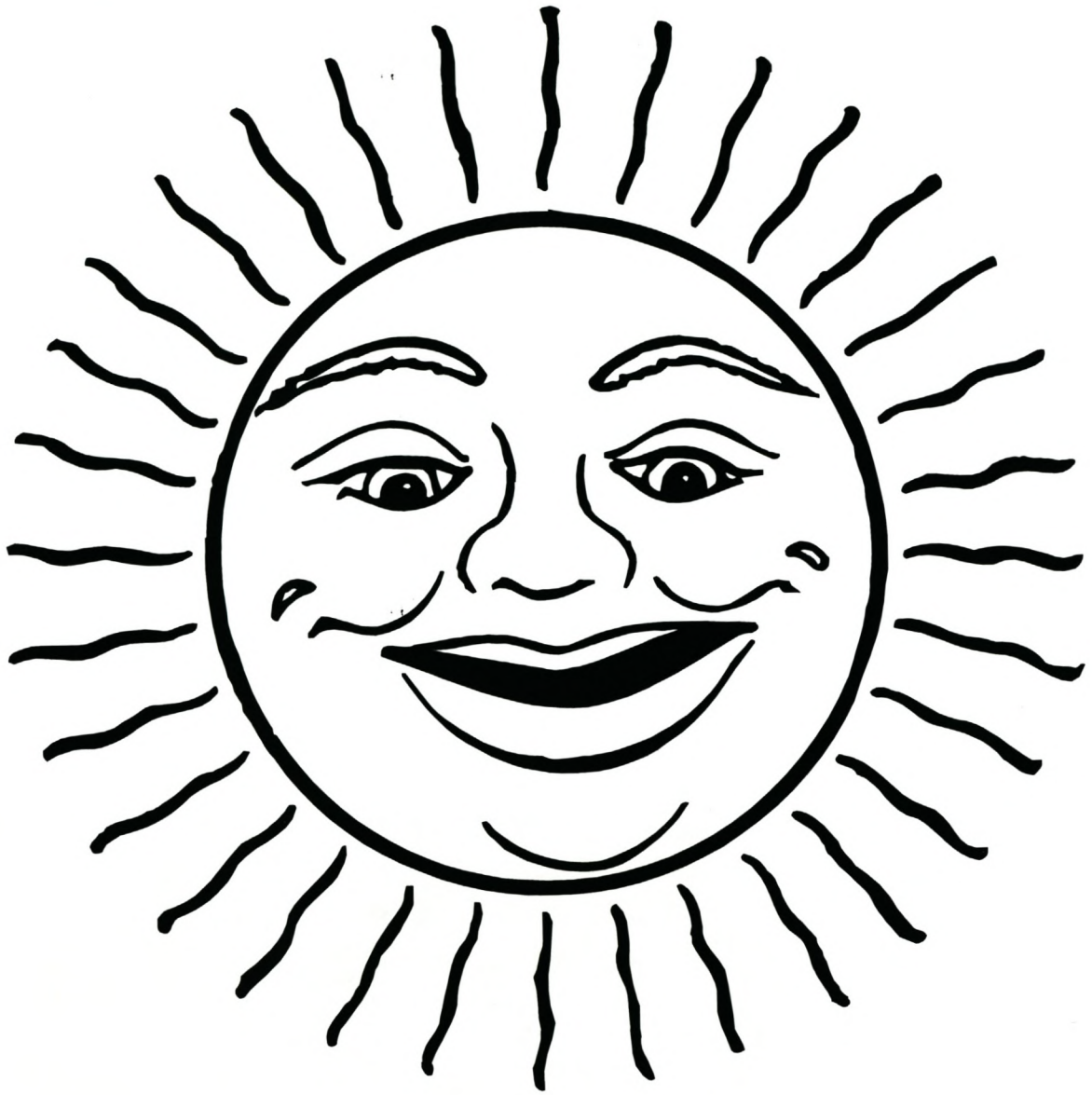
2. Earth



3. Moon



4. Sun



Appendix U
Research Planning Sheet

Research Planning Sheet

Topic:

Name of the Team Members

Role

.....
.....
.....
.....
.....
.....
.....
.....

Resources:

.....
.....
.....
.....
.....
.....
.....

Books
interviews
people

videos
visit to Places

library
Television

Magazines
pictures

Appendix V
Daily Research Plan

Daily Research Plan

Date:

Name of the Team Members

Role

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Possible ideas for research:

- Library
- Interview
- Video
- Write up articles
- Magazines
- Books
- Encyclopaedia
- Members from other teams

Appendix W

Art Assessment

Art Assessment

Attitude

- shows originality
- respects own work
- is easily motivated
- enjoys using various media to complete art sample
- concentrates on the project
- completes project in reasonable time
- accepts suggestions from the educators/team-mates
- shows confidence in own ability
- shares work and accept ideas from others
- respects opinions from others

Awareness

- is visually aware
- is developing an awareness of the elements of art
- is critically aware of the designs on artwork

Process

- regards drafts as learning experience
- evaluates own work constructively
- shows initiative in finding new ideas
- concentrates when working
- draws new ideas from previous attempts
- works systematically
- shows originality and imagination
- is aware when the article is completed

Product

- produces a quality art representation
- uses new skills acquired in art work
- respects own work and discuss it critically and honestly
- is proud of own production
- shows appreciation for other learners work

Part 5
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