CHAPTER 7

Summary of findings, conclusions, recommendations and shortcomings of the study.

7.1 INTRODUCTION

In this chapter a brief summary of the findings from the literature and the empirical study will be presented. Thereafter an account will be given of how the problem had been addressed. The conclusions of the study will address this issue. In the next section certain recommendations are made, regarding teaching practice and future research. The shortcomings of the study are outlined thereafter. The chapter ends with a discussion of the contributions that the study has made to the theory and practice of teaching. The first aspect that will be dealt with in the next paragraphs is a summary of findings from the literature.

7.2 SUMMARY OF FINDINGS FROM THE LITERATURE

In order to present the summary of findings from the literature, it will be necessary to review the research problem. The segregation of LSEN from the mainstream has been caused by widespread problems. Two main problems are:

- Many South African learners have problems with the understanding of English as the medium of instruction.
- The misclassification of learners who do not cope with English as the medium of instruction as special education candidates.

The above problems have resulted in the need for the development of educational programmes to assist learners with the understanding of the medium of instruction (English reading) and therefore in the realisation of their potential.

In order to address the issue of the misclassification of LSEN, the system of separate special education placements was reviewed and was found to be

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problematic in a number of ways. These findings are discussed in the next paragraphs.

7.2.1 PROBLEMS RELATED TO THE SYSTEM OF SEPARATE SPECIAL EDUCATION PLACEMENTS AND THE REALISATION OF THE NEED FOR CHANGE

The following problems regarding the system of separate special education placements have been identified:

- Many terms that are discriminatory such as "learners with mental handicaps" or "mentally disabled" were used to refer to LSEN.
- Many learners who could not cope with English as the medium of instruction were either misclassified as mentally retarded or dropped out of school.
- The use of IQ as categorisation instrument caused the misclassification of many learners, especially when their cultural background and home environment were not taken into consideration.
- The medical model of disability caused negative perceptions about LSEN.
- The practice of separate education settings was in many cases characterised by limited expectations of learners and brief contact with their peers.

These problems have resulted in the realisation that a new paradigm is necessary to cater for the needs of all learners, including LSEN. Inclusion is proposed as a solution to the above problems, including to cater for learners who struggle with English as the medium of instruction in the mainstream. It was found that the term inclusion can be distinguished from "mainstreaming" and "integration", mainly because inclusion believes that the system should meet the needs of the learner, as opposed to the idea that individuals should be changed to fit into the system, which is the main connotation of the other two terms.

In order to define inclusion, it was found that definitions about inclusion should inherently accommodate the principles of the Salamanca Statement, which was signed by 92 countries at the World Conference on Special Needs Education in Spain in 1994. The principles of he conference has been summarised by Nell (1996:36) in the following way:

... every child has a fundamental right to education, and must be given the opportunity to achieve and maintain an acceptable level of learning,

... every child has unique characteristics, interests, abilities and learning needs,

... education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs,

... those with special educational needs must have access to regular schools which should accommodate them within a child-centered pedagogy capable of meeting these needs,

... regular schools with this inclusive orientation are the most effective means of combating discriminating attitudes, creating welcoming communities, building an inclusive society and achieving education for all; moreover, they provide an effective education to the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system.

The statement has been found to be very explicitly against discrimination, especially as far as the terminology is concerned. The use of the term LSEN instead of other discriminatory terminologies is valued. Its value lies in the fact that it proposes to meet the diverse needs of all learners in an inclusive situation. It was found that the policy of inclusion aims at catering for the needs of all learners by using a range of services. Learners who require low levels of support will be assisted in ordinary schools, while learners who require moderate support will be accommodated in full-service schools. The services of special schools will be used to cater for learners who require high-intensive educational support. The emphasis of the policy of inclusion is therefore on the inclusion of learners in an education system that meets the needs of all. Even though different facilities are used, it forms part of a system that aims at including all through accommodating diversity.

As far as support from South African legislation is concerned, it was found that the concept of inclusion does indeed have support from a number of important policy documents. These have already paved the way for the implementation of inclusion.

The above findings have focused on the problematic nature of the system of separate special education placements and the need for inclusion. The overall aim of the research, as indicated above would also involve assisting learners to understand English as the medium of instruction and therefore also to achieve growth in the realisation of human potential. The concept of maximising human potential and its relation to reading would therefore have to be investigated. The following paragraphs outline the research findings in this regard.

7.2.2 FINDINGS FROM THE LITERATURE STUDY ABOUT THE CONCEPT OF MAXIMISING HUMAN POTENTIAL AND ITS RELATION TO READING

In the section to follow the concept of maximising human potential is discussed. It should be kept in mind that maximising human potential is a theoretical term that will in theory be discussed as such. In practice however, it is referred to as growth achieved in the realisation of human potential. The term "maximising human potential" is therefore used in the paragraphs to follow as it refers to theory.

The following aspects were found to be significant concerning the process of maximizing human potential, and are described below:

❑ The concept of maximizing human potential

❑ Maximizing human potential through metalearning

❑ The relationship between reading and metalearning

❑ Sharing meaning with others through cooperative learning

7.2.2.1 The concept of maximizing human potential

Slabbert (1997:58-59) has made the very significant statement that man has been created with potential and that man's quest in life is to maximize it. A very comprehensive definition of maximizing human potential was found to be the following definition of Slabbert (1997:60):

> *Maximising human potential is the process whereby the human being continually exceeds him/herself in every possible way: Expanding the senses, cultivating the mind, developing the body, exploring*

consciousness, deepening relationships and serving others, through which the divine spirit is manifested.

It was found important to realize that maximizing human potential is achieved through a process of lifelong learning, which is a continuous process of change. Slabbert (1997:64) describes it as:

> *... the effortful process of continuously discovering our potential and fulfilling our purpose in life as long as we live.*

When lifelong learning is facilitated, a challenging environment is created, whereby the learner, as Slabbert (1997:65) puts it, is compelled:

> *... to become engaged in a totally absorbing spontaneous learning activity, which will force the dormant potential of the unconscious into the living world of reality.*

7.2.2.2   Maximising human potential through metalearning

Human potential can be maximized through a process of metalearning which has been described by Slabbert (1997:134-229). The following important findings about metalearning are very significant, as far as the research is concerned and are listed as follows:

❑   When the learner maximizes his/her human potential through metalearning, the learner constructs meaning and shares the constructed meaning with him/herself. A prerequisite for constructing meaning is that the learning task is compelling and creates a problem for the learner to solve. A few other requirements are that it should be new, original, creative, it has to claim complete personal involvement of the learner and it should be in real life context.

❑   Metalearning implies that the learner plans, executes, monitors and evaluates his/her own learning.

❑   Metalearning requires that the learner takes responsibility for his/her own learning.

❑   The metalearner needs to have a vast repertoire of learning strategies which need to be used flexibly.

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❑   Metalearning also implies that the learner maximizes his/her multiple intelligences.

❑   The consequence of metalearning is the acquiring of mega life skills.

The following mega life skills have been identified by Slabbert (1997:225-227):

❑   Self-confidence - feeling able to do it

❑   Motivation - wanting to do it

❑   Initiative - moving into action

❑   Effort - willing to work hard

❑   Perseverance - completing what you started

❑   Commonsense - making good judgments

❑   Responsibility - doing what is right

❑   Independence - doing it yourself

❑   Peacefulness - being content

❑   Joy - being happy

❑   Love - caring ultimately for myself and everything around me

The relationship between metalearning and reading was found to be quite interesting. The most important findings are stated below.

7.2.2.3   The relationship between reading and metalearning

It was found that as indicated above, metalearning involves a continuous process of planning, executing learning strategies, monitoring and evaluation. Through this process meaning is constructed which the learner shares with him/herself. Constructed meaning is also shared with others. The end result of this process is that the learner maximizes his/her potential. Reading involves a process that is almost similar. The reader is confronted with the text that poses the problem. The skilled reader possesses a vast repertoire of reading strategies that will be implemented after having planned which strategy will best suit the text. The meaning that is reconstructed from print will be evaluated to determine whether it makes sense. The whole process is continuously monitored by the reader and revised if the desired outcome (meaning) is not reached. The reader shares the newly constructed meaning with him/herself and experiences a sense of self-

confidence and joy which indicates that metalearning is taking place and that the ultimate aim of maximizing human potential is being achieved. It was also discovered that a learner can share constructive meaning with others.

7.2.2.4 Sharing meaning with others through cooperative learning

Cooperative learning was proposed as a solution to the problem of teaching English in large classes. Important findings about the process of cooperative learning are discussed below.

By sharing meaning with others, learners also have access to the vast resources and potential of others (Slabbert, 1997:232). The following points about the relation between cooperative learning and metalearning have been found to be significant (Slabbert, 1997:233).

❑   When cooperative learning takes place, small groups of learners share the meanings they have constructed with each other.

❑   The pre-requisite for cooperative learning is that each learner should have constructed meaning to share. In this way learners cooperate to learn through the sharing of meanings, in order to maximize their potential.

❑   When cooperative learning is successful, cooperative life skills are achieved. The following cooperative life skills are indicators that cooperative learning has taken place and that the process of maximizing human potential is unfolding (Slabbert, 1997:239-242):

- Democratisation and humanization - How do I see you?
- Communication - How do I interact with you?
- Dealing with feelings - How do I react to you?
- Justice and forgiveness - How do I want you to react to me?
- Love - How do I ultimately care for you?
- Leadership - How effectively can I lead you to maximize your potential?

Paired reading which is a form of cooperative learning, was proposed to be a successful way of maximizing human potential as it possesses all the components that are necessary for metalearning to take place. Through cooperative paired

reading all the mega life skills and cooperative life skills, which are indicators that maximizing human potential is taking place, can be obtained.

From the above findings it has become clear that learners can achieve growth in the realisation of their human potential through cooperative paired reading. It was however necessary to conduct a qualitative literature study through grounded theory methodology about the research background to reading.

7.2.3 FINDINGS FROM THE RESEARCH BACKGROUND TO READING

Before intervention can be planned to assist learners with the understanding of the medium of instruction and therefore also with growth in the realisation of human potential, it was found that persons who attempt to assist learners should have knowledge about educational theory regarding teaching/learning in general that can be applied when teaching reading in English. An understanding of how English as a second language should be taught has also been found to be important. The importance of these two aspects is summarised in the next paragraphs.

7.2.3.1 EDUCATIONAL THEORY ABOUT TEACHING/LEARNING IN GENERAL THAT CAN BE APPLIED WHEN TEACHING READING IN ENGLISH

A number of aspects have been identified as important to the teacher who wants to assist learners with reading.

In the first place, the importance of teaching in an intelligence-friendly classroom was indicated. The significance of accommodating the learning styles and strategies of learners was highlighted. Action research was proposed as a means of enabling teachers to meet the diverse needs of learners. As far as the assessment of reading in an inclusive classroom is concerned, a number of suggestions were given as it was found that there is not only one way of assessing learners in inclusive classrooms.

7.2.3.2   THEORY ABOUT THE TEACHING OF ENGLISH AS A SECOND LANGUAGE

A popular approach to the teaching of English as a second language, that has been found to be very promising, is communicative language teaching. The approach has been found very promising when considering the teaching of literacy, as it incorporates the four language skills, instead of attempting to teach them in isolation. Knowledge about communicative language teaching is therefore necessary for teachers who attempt to teach a language or assist learners with reading. Teachers should also have a thorough understanding of what the process of reading involves. It was therefore necessary to clarify the concept of reading.

7.2.3.3   THE CLARIFICATION OF THE CONCEPT READING

The clarification of the concept of reading has revealed that it can be described in terms of the following 19 essential elements, as proposed by Kriegler (1990:64-93).

Reading is:

- An intentional act
- An act in totality
- A language act
- The reconstruction of meaning
- Language awareness and knowledge
- To think
- To know what reading is
- Anticipation
- To remember
- Flexible strategy use
- Self-monitoring
- Self-evaluation
- To practice

❑ Enjoyable and interesting

❑ Comprehension

❑ Appreciation

❑ Self-confirmation in conversation with reality

❑ Multi-sensoric integration

❑ Paying attention

The literature study has also revealed that reading can be taught according to different approaches. Two main approaches were identified: Bottom-up and top-down approaches.

7.2.3.4   APPROACHES TO THE TEACHING OF READING

Bottom-up approaches such as the phonics-based approach and the look-and say approach mainly focus on specific sounds in a word or remembering the shape of the word as it is associated to the sound of the word.

Top-down approaches, such as the whole language approach, eclectic approaches, the psycholinguistic model and interactive reading models place more emphasis on the context of the text or story. Enjoyment and an understanding of the text are also important. Even though these approaches are known as top-down approaches, room is made for the incorporation of bottom-up strategies where necessary. According to interactive reading models, both bottom-up and top-down approaches should be used when teaching reading.

7.2.3.5   THE RELATION BETWEEN THE DIFFERENT APPROACHES TO TEACH READING AND MAXIMISING HUMAN POTENTIAL IN INCLUSIVE EDUCATION SETTINGS

As far as the relation to the different approaches to teach reading and maximising human potential is concerned, it was found that approaches that accommodate both

bottom- up and top- down strategies to teach reading will have more success than only bottom-up or top- down strategies. The whole language approach, for example, that includes reading to the learner and shared/paired reading, which leads to independent reading, incorporates the phases of continuous planning, executing of reading strategies, monitoring and evaluation. These phases should be present when the ultimate aim of reading is pursued, namely the reconstruction of meaning. For inclusive education settings, where learners read on different levels, a combination of bottom-up and top-down procedures was proposed.

Paired reading was found to comply with these requirements. It also accommodates the phases of planning, executing, monitoring and evaluation that are present in metalearning.

The literature revealed a number of variations of paired reading. The paired reading procedure of Young and Tyre (1983) was selected as the method for the reading programme on the grounds of a number of reasons that were listed. Paired reading was also found to be effective by various researchers.

7.3 A MODEL FOR A COOPERATIVE PAIRED READING PROGRAMME TO ASSIST LEARNERS IN INCLUSIVE EDUCATION SETTINGS AND HOW IT CAN BE USED

In order to meet the needs of learners with different reading levels (including LSEN) a cooperative paired reading programme was developed. The programme serves as a model and accommodates two important aspects. The first is that it can be used in inclusive education settings, where learners have different competencies in reading. In the second place, it aims at assisting learners in the understanding of English as the medium of instruction, and therefore also in maximising their human potential. Through the method of cooperative paired reading, the programme aims at the acquiring of mega- and cooperative life skills, which are the consequences of metalearning and cooperative learning. The acquiring of these

skills and improved reading are indicators of growth in the realisation of human potential.

Before the introduction of paired reading, foundation skills and behaviours that are important for later reading success have been discussed. The three phases of paired reading (pre- reading, reading together and reading alone) have been outlined in detail in the programme, with suggested activities that can be focused on during each phase. Each phase and activity has practically been illustrated through the use of materials from DRUM and TRUE LOVE. The 19 essential elements of what reading involves have inherently been incorporated in the programme. The programme has also attempted in a specific section to indicate how Outcomes Based Education can be incorporated in a cooperative paired reading programme. Important aspects that are related to the programme, such as important strategies that can be used by the teacher/tutor and catering for typical poor readers have also been outlined. As far as the selection of materials is concerned, it was mainly found that materials should be interesting, the level of difficulty should be appropriate and it should be culture sensitive.

The first part of the summary of findings has addressed findings from the literature. The second part deals with findings from the empirical study and is discussed below.

7.4   FINDINGS FROM THE EMPIRICAL STUDY

The overall aim of the research was to develop a cooperative paired reading programme to achieve growth in the realisation of the learners' human potential. In order to answer the question of to what degree the programme was successful, the effect of the programme was evaluated both quantitatively and qualitatively. The quantitative findings are discussed first, with the qualitative findings thereafter.

7.4.1 SUMMARY OF THE FINDINGS OF THE QUANTITATIVE RESEARCH

The quantitative measurements of the effect of the programme focused on competency in reading. This involved Reading Speed and Comprehension. These aspects were measured by the following measuring instruments:

❑ The One Minute Reading Test: measuring reading speed

❑ The Test of Basic Literacy in English: measuring comprehension

An experiment was planned, whereby the comparison group pre-test- post-test design was utilised. The control group was not exposed to the cooperative paired reading programme, while the experimental group followed the programme for nine months.

7.4.1.1 A Summary of the findings of the quantitative pre- and post- tests:

❑ The experimental group improved more in terms of reading speed (on average) than the control group. The difference in the average improvement between the two groups was found to be statistically significant.

❑ As far as the improvements in comprehension are concerned, the experimental group did improve more on average than the control group, but the difference in average improvements was not found large enough to state that it was statistically significant.

It can be concluded that as far as the quantitative assessments are concerned, the cooperative paired reading programme did lead to significant improvements in reading speed and comprehension in the experimental group, indicating growth in the realisation of human potential. The use of the process of triangulation (whereby various data- collection methods are used to increase the reliability of

the observations) requires that the quantitative data not be viewed in isolation, but that it should be kept in mind when using other data- collection methods. In the next section a summary of the findings of the qualitative research will be discussed.

7.4.2 SUMMARY OF FINDINGS OF THE QUALITATIVE RESEARCH

The following qualitative data- collection methods were used:

❑ Interviews with three learners from both the experimental and control group to determine whether mega- and cooperative life skills had been acquired.

❑ The facilitator of the experimental group's diary.

❑ The observational instrument measuring acquired mega- and cooperative life skills, with regard to reading.

❑ Interviews with the facilitators of both groups.

The interviews with the learners indicated that the experimental and control groups had shown improvements as far as the acquiring of mega- and cooperative life skills are concerned, but that the improvements in the control group were far less than that of the experimental group. The observational instrument reported the same findings. The interviews with the facilitators also indicated that the learners in the experimental group were acquiring more mega- and cooperative life skills than the learners in the control group. The facilitator's diary indicated that the interesting learning materials that were used during cooperative paired reading had stimulated the learners in such a way that incidental learning had taken place, with the acquiring of mega- and cooperative life skills as a result. The learning programme that was followed in the control group was not found to have stimulated the learners much further than "completing their work" as described by the facilitator.

In general it can be said that the experimental group, that was exposed to the cooperative paired reading programme had improved more in terms of reading speed as well as in the acquiring of mega- and cooperative life skills in general. The control group had also shown improvements, but these were not as great. It can be stated that the learners who were exposed to the programme had in general shown more growth in the realisation of their potential, than the learners in the control group.

It should however be stated that due to the small sample, the findings cannot be generalised. A further aspect that could have contributed to the success in the experimental group and needs to be mentioned, is the fact that the facilitator of the experimental group seemed to have had a more positive attitude to the teaching- learning situation than the facilitator of the control group. Owing to the research design, it is not possible to determine the particular contribution of this factor to the final differences found between the two groups.

7.5 CONCLUSIONS

In order to come to a conclusion of the study, it will be necessary to briefly review the problem. The exclusion of LSEN from the mainstream has been caused by widespread problems. Two main problems are:

- Many South African learners have problems with the understanding of English as the medium of instruction.

- The misclassification of learners who do not cope with English as the medium of instruction as special education candidates.

The above problems have resulted in the need for the development of educational programmes to assist learners with the understanding of the medium of English as the medium of instruction and therefore also in the realisation of their human potential.

The problem was addressed by developing a course that would address both aspects. In the first place, inclusion was proposed as a solution to the problematic nature of misclassification and exclusion. The course was therefore developed for learners in inclusive education settings. In order to address the second aspect of the problem, the programme that was developed aims at achieving growth in the realisation of human potential through addressing the skill of reading. In order to develop the course, educational theory about inclusion and the process of maximising human potential therefore had to be integrated with research about teaching reading.

The cooperative paired reading programme that was developed successfully contributed to improvements in the experimental group's reading ability and their acquiring of mega- and cooperative life skills (as indicators of growth in the realisation of human potential). This finding is supported by theory and results of the empirical study.

7.6   RECOMMENDATIONS

❑ The main recommendation is the wider use of paired reading as described in the model. The problem of learners not coping with English as the medium of instruction should not be addressed by removing them from the mainstream, but by meeting the individual needs of these learners in the classroom through the implementation of programmes such as the cooperative paired reading programme. Teachers should be trained to assist learners who struggle with English

❑ The policy of inclusive education should be implemented. It is however of the utmost importance that "inclusion" should not become a passport to "dump" LSEN in the mainstream without the guarantee of proper teacher training and support. In the second place it should be realised that certain groups of LSEN, such as blind, deaf and severely mentally retarded learners still require highly skilled assistance through the use of advanced technology, that can at the

moment, in a South African context mostly be provided in separate facilities. All attempts possible should however be made to convey the message that these persons are a part of the community and are valued as such.

❑ The following points should be kept in mind when considering the implementation of inclusion:

7.6.1 SENSITISING THE COMMUNITY

In order to implement any programme aimed at inclusion, the community needs to be sensitised about the issue of inclusion. Discriminating attitudes and perceptions about the "disabled" and LSEN need to be changed. Terminologies which are discriminatory and stigmatise individuals should be pointed out and the preference of using non-discriminatory terms should be indicated. The new paradigm of inclusion, which takes the place of segregation, should be brought to the attention of the wider community by means of advocacy campaigns from the provincial departments of education. The release of the White Paper on inclusion will ensure uniform policy in this regard.

The community should also be persuaded to make available all possible resources to promote programmes aimed at assisting LSEN. The community can be of valuable assistance by forming partnerships with parents of specific schools regarding the provision of resources such as magazines, as well as by assisting to make school buildings barrier free to all learners (keeping in mind the exceptions mentioned previously).

7.6.2 SENSITISING NON GOVERNMENTAL ORGANIZATIONS

Non Governmental Organizations should be made aware of the policy of inclusion and should be approached to provide support for the implementation of programmes for learners in inclusive education settings. Materials, such as magazines and newspapers which are discarded in their millions every year, may be channelled to schools so as to be used as materials to assist in improving reading.

Non Governmental Organizations should also be approached to help, after school, with transitional planning for learners with special educational needs. Many learners who were previously doomed to be unemployed will have better prospects of being employed through better coordination between NGO's and schools.

7.6.3 SENSITISING PSYCHOLOGISTS AND THERAPISTS WORKING WITH CHILDREN

It is of paramount importance that these professionals should be very knowledgeable about the policy of inclusion and the need for the provision of programmes for assisting LSEN in inclusive education. Training of this group will be necessary in the following areas: legislation about non-discrimination and segregation of learners, non-discriminatory perspectives regarding intelligence, non-discriminatory and non-stigmatising uses of IQ test results, the theory of multiple intelligences and viewing learners as individuals with potential which needs to be maximized. Psychologists and therapists should also be approached to provide assistance in the development of programmes for LSEN in inclusive settings.

7.6.4 THE ROLE OF GOVERNMENT EDUCATION DEPARTMENTS

Provincial Departments of Education should implement a uniform policy about inclusion and provide support to the districts. The role of provincial departments to promote literacy is also very important in this regard. District support centres will have to be established to provide support to the districts. The core functions of the district support centres will be the following:

❑ District support teams will have to be established and will have to take a leading role in the implementation of the inclusion policy in general, and the administration thereof, as well as programme implementation. These teams will have to be trained by the provincial departments.

❑ The district support teams will have to provide training to teachers in the implementation of learning programmes. Support will also have to be provided. The clustering of schools can be significant when support and training are provided.

❑ Teachers will also have to be supported by the district support teams as far as identifying problems regarding literacy in English is concerned, and implementing strategies to assist these learners.

❑ Existing programmes for LSEN will have to be reviewed and participation in successful programmes should be extended.

❑ District support teams should provide continuous support to teachers and managers

Apart from establishing the district support teams, the Government Education Departments should raise the public awareness about inclusion, provide funding for implementing programmes, ensure that all learning centres are barrier free, as far as LSEN are concerned, and review the curricula, means of assessment and quality assurance initiatives, as far as accommodating LSEN in the mainstream is concerned. Materials development is also the responsibility of the Department, as well as the distribution of the resources. The review of teacher learner ratio's, for inclusion to be successful, is also a serious matter that will have to be attended to by the Department, as well as providing the necessary support in the form of teachers.

Higher education training institutions should accommodate the policy of inclusion in their training and develop programmes for inclusive settings. Students of education faculties should be trained to implement these programmes.

7.6.5 TEACHER IN-SERVICE-TRAINING WITH REGARD TO THE POLICY OF INCLUSION

Teachers will have to be trained to fully understand the policy of inclusion. South African legislation should also be reviewed in order to realize the compulsory nature of the inclusion policy. Teachers should realize why it was necessary to move away from the medical/clinical model of disability to the policy of inclusion. The negative consequences of exclusion can be highlighted. It will be absolutely essential that the attitude of teachers towards LSEN should change. They should

also realize that it has now become their task to cater for all learners. Terminologies which have been found not favourable for further use, such as "handicapped" learners, should be brought to their attention and suitable alternatives should be supplied.

Teachers should be taught how to accommodate diversity in the classroom. It should be pointed out that learners have different learning styles and learning strategies, and therefore teachers will have to vary their teaching styles in order to accommodate all learners. In this regard teachers should also be trained to meet the needs of learners with different competency levels in English. Teachers should also be trained to address problems related to the use of English as the medium of instruction. In-service-training should also be provided to assist teachers to become more proficient in the use of English.

An issue that has to be dealt with as a matter of great urgency is teachers' perceptions regarding IQ and intelligence testing. It should be realized that it is not desirable to segregate learners from the mainstream only on the grounds of low IQ scores. Teachers should understand what is implied by the term "intelligence" and that it includes multiple intelligences. The development of these multiple intelligences should be facilitated by teachers. Training in life skills education will be necessary and teachers should be made aware of how human potential can be realised.

Teachers of the general education system should be prepared to cooperate with special education teachers to share in their respective fields of expertise. Special Education Needs coordinators (SEN-coordinators) will have to be identified for making initial contact with these teachers.

Other aspects in the school that will have to be reconstructed to come in line with inclusion will have to be covered during training. These aspects are the following: the school policy, school development, curriculum development, human resource utilization and development, technical and other support services, creating an inclusive school culture and leadership management. At this stage these issues are only mentioned and will not be discussed in further detail.

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Apart from recommendations about the implementation of inclusion, a few recommendations about future research have been proposed. These are discussed in the next paragraphs.

7.7   FUTURE RESEARCH

❑   Research will have to be conducted by interdisciplinary teams in order to determine ways of best accommodating learners with diverse special needs in inclusive education in a South African context. Researchers from the fields of psychology, speech therapy, occupational therapy and others will have to define their respective supportive roles.

❑   Ways of best changing the attitudes of teachers about learners with special educational needs will have to be researched.

❑   Resources that are cheap and easy to use will have to be researched, as resources are not always provided by the Department.

❑   The development of programmes for all learners (including LSEN) should aim at achieving growth in the realisation of their potential. Cooperative learning and metalearning that are vehicles to bring about the acquiring of mega- and cooperative life skills (indicators of the realisation of human potential) should be integrated in other programmes for other learning areas. The development of such programmes should be researched.

❑   Problems associated with the use of English as the medium of instruction in schools where English is not the learners' first language should be identified. Future research should also focus on the planning and implementation of programmes to address these problems in such schools.

7.8 SHORTCOMINGS OF THE STUDY

The following shortcomings of the study are reported:

❑ Constraints related to time were experienced. Owing to organizational factors in the school and the school calendar, the programme could only be implemented for nine months. If the programme could have been implemented for a longer period, it is believed that even better results would have been achieved.

❑ Owing to the fact that most of the learners were staying in hostels, parental support was virtually non-existent. If the support of parents, to assist with paired reading for a few minutes each day were available, it is believed that better results would have been achieved.

❑ The lack of similar studies (maximising human potential and improving reading in inclusive education settings) in South Africa made it difficult for the researcher to draw from the research of others which always has the possibility of leading to ways of improving the research results. However, it is believed that with Government having taken the first steps towards inclusion, the number of studies will increase in the near future.

❑ The experimental design which consisted of an experimental group and a control group that were different regarding their reading proficiency and age, made it difficult to statistically compare the improvements of the two groups. An experiment with groups that are more similar would be more comparable. Due to the small size of the sample of the empirical study, the findings cannot be generalized. It is however believed that the ideographic nature of the research has provided future researchers with an example of how growth can be achieved in the realisation of human potential of learners in inclusive education settings.

❑ It is believed that the positive attitude of the teacher of the experimental group could have contributed to the success in the experimental group and no measures were used to quantify teacher attitudes and abilities.

7.9   EPILOGUE

A new synthesis of various aspects that are addressed by the study has lead to contributions in a number of areas that are discussed below.

❑   **THEORY BUILDING: EDUCATIONAL THEORY**

A contribution has been made to the building of educational theory in various areas. Through the utilisation of grounded theory methodology in the form of a qualitative literature study, the problematic consequences of exclusionary special educational placements and the need for the implementation of inclusion were realised. The policy of exclusion therefore needs to be replaced by inclusion. An account is given of the origins of inclusion overseas and how far the process of implementation is in South Africa.

Theory about the process of how human potential can be maximised has been generated. This theory can be applied in other situations in education.

A contribution was made as far as the research background to reading is concerned, by constructing theory that indicates that paired reading is a viable means of assisting LSEN in inclusive education settings.

Theories of the above aspects were integrated to build new theory. Theory of maximising human potential through meta- and cooperative learning was integrated with educational theory about inclusive education and theory about teaching reading, which lead to the construction of new educational theory.

❑   **EDUCATIONAL PRACTICE**

- A contribution is made to educational practice by developing a reading approach that is simple and holistic. It embodies the theory that had been generated. A cooperative paired reading programme was developed that aims to achieve growth in the realisation of human potential of LSEN. The growth includes improvements in

reading speed and comprehension, as well as acquiring mega- and cooperative life skills.

- The value of the use of culture sensitive materials such as DRUM to improve reading has been demonstrated.

- The programme that was developed has demonstrated how inclusion can be implemented and be successful as far as teaching reading is concerned. A practical demonstration of how Outcomes Based Education can be accommodated in the reading programme has shown that the programme can be used where Outcomes Based Education is practised.

- The programme has indicated how reading can be improved through a cost effective means where the competency levels of learners differ.

- The programme can be useful to persons such as teachers, remedial teachers, educational psychologists and parents.

❏ THE DEVELOPMENT OF RESEARCH METHODOLOGY

The research demonstrates that action research can be an effective method for the continuous monitoring of programmes for LSEN in inclusive settings. The value of utilising the process of triangulation whereby various data- collection methods are used to increase the reliability of observations was realised. Qualitative research, such as the use of diaries, interviews and observations has been found to provide a rich source of information that complemented the quantitative data. As the policy of inclusion still has to be implemented in schools, the particular research methodology utilised in the study can guide other efforts as far as implementing inclusion is concerned.

❏ POLICY FORMULATION

In the Northern Province, fragments of many policies to classify, and exclude LSEN from the mainstream are still being adhered to. The study has indicated that illiterate learners (in English) can be taught to read and improve their reading

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alongside their more fluent peers and that in such cases exclusion is not necessary. The study therefore holds a strong recommendation for changing policies that are no longer applicable. The study has given direction to the final formulation of policy in the Northern Province that will cater for the needs of all learners and protect the rights of LSEN.