

**PRIMARY SCHOOL EDUCATORS' ATTITUDES  
TOWARDS INCLUSIVE EDUCATION**

**SIBONGILE PRIMROSE ZULU**

**2009**

**PRIMARY SCHOOL EDUCATORS' ATTITUDES TOWARDS INCLUSIVE  
EDUCATION**

**BY**

**SIBONGILE PRIMROSE ZULU**

**MA (RESEARCH) BA Hons, BA, PGCE, HRM (UZ)**

**A dissertation submitted to the faculty of education in fulfilment requirement for  
the degree of Master of Education in the Department of Educational Psychology and  
Special Education at the University of Zululand.**

**SUPERVISOR : DR J.D. ADAMS**

**DATE : 16 April 2009**

## ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who tirelessly assisted me in the completion of this study.

God the Almighty, for being with me always, giving me strength, power, wisdom and knowledge. I will praise your name forever.

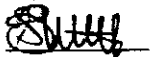
My special words of appreciation go to my supervisor Dr JD Adams of Department of Educational Psychology & Special Education, Prof. P.T Sibaya and Dr Sibaya for their encouragement and guidance throughout the duration of this study. Their support and tolerance made it a success. These people played a tremendous role from the inception of this study. Their inspiration gave me vigour to proceed with this study.

I also wish to express my appreciation and gratitude to the following people:

- All the participants from Zululand region (Empangeni and Obonjeni District), your contributions are highly appreciated.
- All the staff members in the Faculty of Education for their perseverance and attention when I needed help. A special thanks to The Executive Dean Prof S.N. Imenda, Hlengiwe Khanyile, Mrs Choice Mpanza, Ms Zandile Hlathwayo; Mr DW Mncube, Dr MAN Duma, Mr PD Khanyile, DR MC Maphalala and Mr H Jamile.
- My beloveth mother (Alvina Dlamini), my sister Bonsile and my nephew Melusi, thank you very much for being there for me in times of hardships.
- Pastor MC and Pastor NH Dlomo, and all members of Covenant Fellowship Church International (CFCI), thank you for the words of wisdom, prayers and support.
- Mrs I.S. Kapueja and family, your moral support is highly appreciated.
- The staff of the UZ library for their readiness to help in the course of this study.
- The Mahlangu family and my friend Khanyi your endless love and encouragement are appreciated.

## DECLARATION

I Sibongile Primrose Zulu hereby declare that the work on “Primary school attitude of educators towards inclusive education” is my initiative and all the information that has been given is true, and has been conducted on the subjects at Empangeni and Ubombo Districts in the province of Kwa-Zulu Natal. Sources consulted or cited are acknowledged in the text as well as in the list of references.



Signature

**S.P. ZULU**

30/04/2010

**DATE**

## **DEDICATION**

The project is dedicated to all young and old, male and female, educators, all stakeholders and the Department of Education. Your contributions made up this project. May God the Almighty, be with you and bless you and your families.

## ABSTRACT

The current principles of education policies in South Africa reflect great challenges facing a society in transition. Evidently, the task undertaken by successive democratic governments since 1994 has been to address the inequalities of the past. Since as the capacity of country's building education in various ways - including Special Needs Education, Inclusive Education and Training System, in particular, the White Paper 6 (2001) attempted to promote, enhance and support the inclusion, participation and development of learners.

This study examined the attitudes of primary school educators towards inclusive education, particularly the inclusion of mentally challenged learners. The study was specifically investigated the attitudes of primary school educators towards the inclusion of mentally challenged learners in mainstream education. It also aimed to determine the category/categories of mentally challenged learners which primary school educators preferred to be integrated in the mainstream. Additionally, the study also sought to establish how the following variables associated with the attitudes of educators towards the inclusion of mentally challenged learners in mainstream education: age, grade level taught, gender, type of school, teaching experience and class size.

The study was both analytical and quantitative descriptive in nature, in which educators from primary schools in the Empangeni and Obonjeni Districts serve as accessible population. A structured questionnaire constructed according to a five-point Likert - type scale was used to collect data. Data were analysed both qualitatively and quantitatively. The statistical technique used to test the hypotheses was the Chi-square. The findings indicated that the majority of educators held negative attitudes towards the inclusion of the mentally challenged learners in mainstream education. Finally the findings revealed that the variables of, gender, age, type of school, experience and class size have no influence on primary school educators attitude towards the inclusion of mentally challenged learners. However, the variable grade showed to have an influence on educators' attitude towards the inclusion of the mildly mentally challenged learners into mainstream education.

Ninety percent of educators indicate that educators prefer to integrate gifted learners, mild and moderately mentally retarded learners; and Underachieving learners.

Although not overwhelmingly demonstrated, there is presumptive evidence that the work environment has an impact on the attitudes of the primary school educators. There is an urgent need for improvement of certain service conditions in the school setting to change the attitudes of educators. Lack of experience, lack of in-service training and lack of inspiration emerged as other factors retarding the implementation of inclusive education.

## TABLE OF CONTENTS

	PAGE
<b>PREFACE: ACKNOWLEDGEMENT</b>	i
<b>DECLARATION</b>	ii
<b>DEDICATION</b>	iii
<b>SUMMARY OF THE STUDY</b>	iv
<b>TABLE OF CONTENTS</b>	vii
 <b>CHAPTER: ONE</b>	
<b>1. OVERVIEW OF THE STUDY</b>	<b>1</b>
<b>1.1 Introduction</b>	<b>1</b>
<b>1.2 Motivation for the study</b>	<b>10</b>
<b>1.3 Statement of the problem</b>	<b>12</b>
<b>1.4 Aims of study</b>	<b>13</b>
<b>1.5 Research questions</b>	<b>13</b>
<b>1.6 Research hypotheses</b>	<b>13</b>
<b>1.7 Research methods</b>	<b>13</b>
<b>1.8 Operational definition of terms</b>	<b>14</b>
<b>1.8.1 Attitudes</b>	<b>14</b>
<b>1.8.2 Mainstream Education</b>	<b>14</b>
<b>1.8.3 Inclusion</b>	<b>14</b>
<b>1.8.4 Mentally challenged learners</b>	<b>15</b>
<b>1.9 Summary</b>	<b>15</b>
 <b>CHAPTER: TWO</b>	
<b>2. LITERATURE REVIEW</b>	<b>16</b>
<b>2.1 Introduction</b>	<b>16</b>
<b>2.2 Studies on the nature of educators' attitude towards Inclusive Education</b>	<b>17</b>
<b>2.3 Studies on categories of mentally challenged learners which educators prefer to be integrated into the mainstream</b>	<b>21</b>
<b>2.4 Studies on variables influencing educators' attitude towards inclusion</b>	<b>26</b>
<b>2.5 Summary</b>	<b>30</b>



## CHAPTER: THREE

<b>3.</b>	<b>RESEARCH METHODOLOGY</b>	<b>32</b>
<b>3.1</b>	<b>Introduction</b>	<b>32</b>
<b>3.2</b>	<b>Aims of the study</b>	<b>32</b>
<b>3.3</b>	<b>Hypotheses</b>	<b>33</b>
<b>3.4</b>	<b>Research design</b>	<b>33</b>
<b>3.5</b>	<b>Sampling design</b>	<b>34</b>
<b>3.6</b>	<b>The method of data collection</b>	<b>34</b>
<b>3.7</b>	<b>Validity and reliability</b>	<b>36</b>
<b>3.8</b>	<b>Ethical considerations</b>	<b>37</b>
<b>3.9</b>	<b>Method of scoring and data analysis</b>	<b>37</b>
<b>3.10</b>	<b>Planning for administration of research instrument</b>	<b>38</b>
<b>3.11</b>	<b>Summary</b>	<b>39</b>

## CHAPTER: FOUR

<b>4.</b>	<b>PRESENTATION AND ANALYSIS OF DATA</b>	<b>40</b>
<b>4.1</b>	<b>Introduction</b>	<b>40</b>
<b>4.2</b>	<b>The pilot study</b>	<b>40</b>
<b>4.3</b>	<b>Administration of the research instrument in the pilot project</b>	<b>40</b>
<b>4.4</b>	<b>factor analysis of 41 items</b>	<b>42</b>
<b>4.5</b>	<b>Result of the final study sample</b>	<b>45</b>
<b>4.5.1</b>	<b>Hypothesis number one</b>	<b>48</b>
<b>4.5.2</b>	<b>Hypothesis number two</b>	<b>49</b>
<b>4.5.3</b>	<b>The categories of mentally challenged learners in which educators prefer to be integrated into the mainstream</b>	<b>53</b>
<b>4.5.3.1</b>	<b>Mild and moderately mentally retarded learners</b>	<b>54</b>
<b>4.5.3.2</b>	<b>Gifted learners and gifted underachievers</b>	<b>55</b>
<b>4.5.2.3</b>	<b>No category / categories preferred</b>	<b>56</b>
<b>4.6</b>	<b>Summary</b>	<b>57</b>

## CHAPTER: FIVE

<b>5. DISCUSSION OF RESULTS, IMPLICATION FINDINGS, LIMITATIONS AND CONCLUSION</b>	<b>59</b>
<b>5.1 Introduction</b>	<b>59</b>
<b>5.2 Discussion of findings</b>	<b>60</b>
<b>5.2.1 Findings with regard to the first aim</b>	<b>65</b>
<b>5.2.2 Findings with regard to the second aim</b>	<b>66</b>
<b>5.2.3 Findings with regard to the third aim</b>	<b>67</b>
<b>5.3 Educational Implication of findings</b>	<b>67</b>
<b>5.4 Limitations of the study</b>	<b>67</b>
<b>5.5 Avenues for future research</b>	<b>68</b>
<b>5.6 Conclusion</b>	<b>68</b>
<b>6. REFERENCES</b>	<b>70</b>
<b>ANNEXURE A: EDUCATORS' QUESTIONNAIRE</b>	<b>88</b>
<b>ANNEXURE B: EDUCATORS' CONSENT FORM</b>	<b>94</b>
<b>ANNEXURE C: REQUEST FOR PERMISSION TO CONDUCT THE STUDY</b>	<b>95</b>
<b>ANNEXURE D: PERMISSION TO CONDUCT THE STUDY</b>	<b>96</b>
<b>ANNEXURE E: REQUEST FOR ACCESS TO SCHOOLS</b>	<b>97</b>
<b>ANNEXURE F: PROFILES OF THE RESPONDENTS</b>	<b>98</b>
<b>7. TABLES</b>	<b>37</b>
<b>Table 3.1 A Likert-type ranking scale</b>	<b>37</b>
<b>Table 4.1 Distribution of subjects in a pilot study</b>	<b>40</b>
<b>Table 4.2 Factor Analysis: Factor loadings of 41 items</b>	<b>43</b>
<b>Table 4.3 Distribution of subjects in a study sample</b>	<b>44</b>
<b>Table 4.4 Gender distribution of subjects</b>	<b>45</b>
<b>Table 4.5 Age distribution of subjects</b>	<b>45</b>
<b>Table 4.6 Subject teaching experience</b>	<b>46</b>
<b>Table 4.7 Grade distribution of subjects</b>	<b>47</b>
<b>Table 4.8 School type distribution of subjects</b>	<b>47</b>
<b>Table 4.9 Class size distribution of subjects</b>	<b>48</b>

<b>Table 4.10</b>	<b>The disposition of educators attitudes</b>	<b>49</b>
<b>Table 4.11</b>	<b>Gender versus educators' attitudes</b>	<b>50</b>
<b>Table 4.12</b>	<b>Age versus educators' attitudes</b>	<b>50</b>
<b>Table 4.13</b>	<b>Grade level taught versus educators' attitudes</b>	<b>51</b>
<b>Table 4.14</b>	<b>Educators' teaching experience versus educators' attitudes</b>	<b>51</b>
<b>Table 4.15</b>	<b>Type of school versus educators' attitudes</b>	<b>52</b>
<b>Table 4.16</b>	<b>The influence of class size and educators' attitudes</b>	<b>53</b>
<b>Table 4.17</b>	<b>The classification of mentally challenged learners</b>	<b>54</b>

## CHAPTER ONE

### OVERVIEW OF THE STUDY

#### 1.1 Introduction

Contemporary principles of the education policies in South Africa reflect the great challenges that are faced by a society in transition. Evidently, the main task undertaken by the successive democratic government is to address the inequalities of the past. The education system plays a key role in this regard, while also paying special attention to crucial aspects of education in transition, such as Special Needs Education, Inclusive Education and Training Requirements (White Paper 6, 1996). A more recent example of transition is the move to include learners with special educational needs in mainstream education. Educators in South Africa, however, face many challenges in implementing a policy of inclusion. In spite of advances made in educational policies, they are constantly challenged by complex problems in making such policies a reality and in effectively achieving equal rights and participation of all role players, including learners, educators, parents and communities (White Paper 6, 2001).

Over the past twenty years, the integration of children with disabilities into mainstream education has become a worldwide phenomenon and is currently part of educational policy in most developed countries (Department of Education, 1997). In South Africa, this move is part of a broader concern to emphasize the rights of handicapped and mentally challenged learners, and to appropriate education and training for independent living and an acceptable quality of life as part of a normal community (Forian, 1998; UNESCO, 1998; Pijl, Meijer & Hegarty, 1997).

The South African government has clearly stated its intention to implement an inclusive policy in all mainstream schools. The government's commitment to inclusion is expressed in documents such as White Paper on Education and Training (South Africa 1995); in the South African School Act (1996); in the National Disability Strategy (Department of Education, 1997); in the report of the National Commission on Special

Needs in Education and Training (NCSNET, 1997) and in a publication of the Committee on Education Support Services (NCESS) entitled Quality Education for All (Department of Education, 1997). Naicker (2002) stated that the need for an inclusive policy (and its implementation) was also supported at a national conference that was held in Salamanca in 1996. The conference focused on areas such as the development of an inclusive society, the challenge of redress, and on the challenge of inter-sectoral collaboration and cooperation.

The inclusive orientation was a strong feature of the Salamanca statement on principles policy and practice in special needs education, agreed by representatives of 92 governments and 25 international organisations (UNESCO, 1994). Specifically, in the agreement, the argument was that regular schools with inclusive orientation were welcoming communities, building an inclusive society and achieving education for all. Moreover, they provided an effective education to the majority of learners and improved the efficiency and ultimately the cost effectiveness of the entire education system. Furthermore, in this conference, it was agreed that schools should accommodate all learners, irrespective of their physical, intellectual, social, emotional, linguistic, sexual and racial status. This included among others, the disabled, gifted, street learners, learners from linguistic, ethnic, or cultural minorities and also learners from disadvantaged and marginalised areas (Salamanca Statement, 1994). This view is fully supported by Inclusive Policy for Education in South Africa that promotes the provision of educational opportunities, in particular to those learners who experience or have experienced barriers to learning and development or who have dropped out of learning because of the inability of the education and training system to accommodate their leaning needs (White, Paper 6, 2001).

...“In the white paper on Education and Training (1995), the Department of Education and Training introduced initiatives to respond to diverse needs. These initiatives included the culture of teaching, learning and services (COLTS) which is known as Tirisano programme; the National Curriculum Framework (NQF); Curriculum 2005

based on an Outcomes-Based Education (OBE) approach; and the new Language Policy” (Angelbrecht, Green, Naicker, Angelbrecht, (2001) .

Since Africans with disabilities were excluded from formal education, no official provision for specialized education was made for them. The establishment of schools for disabled learners was mainly due to private initiative (churches, other private organisations and individuals) and for specific disability groups. In particular, churches established a number of special schools for black learners in South Africa ( Kisanji, 1999). Kisanji (1999) reveals that in 1937 the special school amendment Act was passed, in terms of which all parents with disabled learners were required to send their learners to those schools. Thus, the *South African school Act of November 1996* stresses the principle of education as a basic human right. In this act, access for all learners to a school of their own choice became legislated. For instance, Section 5 (1) of the Act declared that “a public school must admit learners and serve their educational requirements without unfair discrimination in any way”. However, the Act has its shortcomings, mainly in some clauses which undermine the development of an integrated inclusive education system (Landberg, Kruger & Nel, 2005: 17).

The White Paper on Education and Training and the *South African Schools Act 84, 1996 (SASA)* created the basis necessary in policy and legislation to facilitate a paradigm shift in inclusive education. In the white paper on an Integrated National Strategy, strategies for access of curriculum for learners with impairment were emphasized. There was also a paradigm shift from the medical model of diversity to a socio-critical model that is based on the premise that “society must change to accommodate diverse needs for its people” (Landberg, et al., 2005). The report issued by the National Commission on Special Needs Education and National Committee on Support Services in 1997 elaborated on the practical implementation of inclusive policy in the South African context.

South African authorities have taken the initiative to apply the recommendations of the Salamanca Framework for action (UNESCO, 1994). This framework declared that

inclusive schools must recognise and respond to the diverse needs of learners, accommodating all the learners regardless of all the difficulties of learning differences. The introduction of the White Paper 6 of 1996 is a good example of the government's commitment towards inclusive education. Bothma, Gravett, and Swart (2004) attest that the policy stipulates all learners, irrespective of race, gender, class, religion, disability, culture or sexual preference have the right access learning in a single system education that values, respect and accommodates diversity.

The government's commitment to the implementation of an inclusive education system is also indicated by its declaration that a regular school system should also provide for the educational needs of disabled learners (Harvey, 1992). Immediate implementation of such a vision for the education of learners with special needs would place an unconscionable burden of responsibility on regular teachers and for this reason government's recommendation is welcomed on conditions, for instance, that instructional, organisational and administrative support systems are to be provided for regular classroom educators (Bothma et al, 2004). This implies that the future regular school or classroom in South Africa can be expected to include learners who are challenged with physical, cognitive or emotional factors that could interfere with their learning (Green, 1991).

In as much as the question of embracing inclusive education principles is relevant for a society in transformation, it is worth mentioning that special education researchers, like Ivey and Julie (2002) acknowledge the fact that policy dealing with inclusion has had a major effect on how learners with special needs are accommodated. According to Du Toit (2002), inclusive education shifts from the learner to the educator, in the sense that the demands on the part of educators is to adjust themselves in order to suit the needs of the learner.

Ivey and Julie (2002) further contend that a lot of work needs to be done in terms of understanding and transforming the attitudes of educators towards inclusion. According to these authors ( Ivey & Julie, 2002), it was noted that attitude cannot be legislated. This,

in essence, means the attitude of educators is critical for the successful implementation of inclusive education (Guidium, 2000; Dover, 2000; Elloker, 1999). It is for this reason that the present study aimed at among other things, examining primary school educators' attitudes towards inclusion of mentally challenged learners in the mainstream classroom.

The educators' attitudes seem to be affected by several interacting factors. One of the most important factors is the level of support that they receive from District Support Teams (DSTs) and the variation in teachers' attitudes seems to be closely related to the variation of support received. It seems to be clear that the provision made by DSTs, either through direct staffing or through support services (such as special needs support for teachers, educational psychologists, etc.) should be maximised, otherwise, it is likely to affect educators' attitudes. This implies that there could be barriers to the successful implementation of an inclusion policy such as available support systems.

Indeed, the literature indicates that very few, if any studies have been conducted in this country with regard to the attitude of primary school educators towards the inclusion of the mentally challenged learners in mainstream education. Similar studies on educators' attitude towards inclusive education have, however, been conducted abroad and locally (Bochener & Pieters, 1989; Thomas, 1995; Center & Ward, 1997; 1997; Florian, 1998; Hay, Smit, & Pavlsen, 2001; Williams, 2002; Mashiya, 2003; Naidoo, 2004).

Although the movement for inclusive education is part of a broad human rights agenda, other educators abroad seem to have serious reservations about supporting the widespread placement of learners with special educational needs (LSEN) in mainstream schools (Florian, 1998). The studies (Bochener & Pieters, 1989; Center & Ward, 1997; Payne, 2005) conducted abroad about the attitudes towards integration education have provided a range of information in this area. These researchers (Bochener & Pieters, 1989; Center & Ward, 1997; Payne, 2005) conducted their research on attitudes of head-teachers, psychologists, teachers and pre-school administrators which revealed that professional groups were cautious with regard to the types of children that they believed would most likely be successfully integrated. The above studies indicated that the



professional groups' attitudes towards integration are strongly influenced by the nature of the disability and / or the educational problems presented and, to a lesser extent, by the professional background of the respondents.

In a comparative study done on "the determinants of teachers' attitudes to integrating the intellectually handicapped" in England and in the United States of America (USA), Thomas (1995), found that the balance of opinion was against the integration of children who are intellectually challenged or who experience learning difficulties. The term 'learning difficulties' is used in England, while 'the educable mentally retarded' (EMR) is the term applicable to the USA. In this comparative study, it was also found that attitudes were more positive towards integration when there was confidence in selecting appropriate teaching methods and when there was a traditional policy of locational integration. Thomas (1995) further reveals that educators who are the prime targets of the implementation of this policy are not prepared to meet the needs of LSEN. In the same view, Payne (2005) observes that special education educators have one of the largest numbers of shortages identified in the field of education because educators are not ready and equipped to cater for the needs of LSEN. In their meta-analysis of American attitude studies which included 28 survey reports, Scruggs and Mastropieri (1996) indicated that two third of teachers surveyed (10 560 in total) agreed with the concept of integration. A smaller majority agreed to implement integration practices in their classes. However, responses appeared to vary according to disabling conditions. Moreover, fewer teachers believed they had sufficient time, skills, training and resources necessary for integration.

Other studies (Horne & Riccardo, 1998; Berryman, 1989; Barton, 1992) on "teachers' attitudes towards mainstreaming highlighted that general educators have not developed an empathetic understanding of disabling conditions, nor do they appear to be ready to accept LSEN. This can be explained by the fact that in the past, integration had often been effected in an *ad hoc* manner without systematic modification to a school's organisation, due regard to the teachers' instructional expertise or any guarantee of continuing resource provision.

Center and Ward's (1997) study on "regular school teachers' attitudes towards integration education" indicated that teachers' attitudes to integration reflected lack of confidence both in their own instructional skills and in the quality of support personnel available to them. They were positive about the integration of only those children whose disability characteristics were not likely to acquire extra instructional or management skills on the part of educators.

Another UK study by Clough and Lindsay (1991) investigated the attitudes of teachers towards integration and different kinds of support. This study provided some evidence that attitudes had shifted in favour of integrating children LSEN over the previous 10 years. They argued that this was partly the result of certain experiences that teachers had gone through. Teachers were also asked whether they had developed any competencies and whether they had not been swamped. The majority of respondents felt that they were incompetent to teach learners with diverse needs. This study (Clough & Lindsay (1991) further revealed that although respondents appeared to be more supportive of integration, they varied in their views with regard to the most difficult needs that had to be met. In general, educators identified LSEN as problematic, particularly, those with emotional and behavioural difficulties (EBD).

Studies conducted abroad on teachers' attitudes towards "full inclusion", report results that are not supportive of full placement of LSEN in mainstream schools (Coats, 1999; Semmel, Abernathy, Butera & Lesar, 1991; Vaughn, Elbaum, & Schumm, 1996; Villa, Thousand, Meyers & Nevin, 1996; Heillier, 1998; Coats, 1999 ). A study carried out (in Iowa , 1999) for example, reported that general education teachers did not hold a negative view with regard to special educational programmes, nor were they supportive of full inclusion. Similar findings were reported by Semmel et al. (1991), who, having surveyed 381 elementary educators (both general and special), concluded that the educators were not dissatisfied with the special education system that operated "pull out" special educational programmes. Vaughn et al (1996) conducted a study on mainstream and special education teachers' perceptions of inclusion through the use of focus group

interviews. The majority of these teachers, who were not at the time participating in inclusion programmes, had strong negative feelings about inclusion and felt that decision makers were out of touch with classroom realities. Teachers also identified factors such as class size, inadequate resources, and the extent to which all students would benefit from inclusion and the lack of adequate teacher preparation as problems.

The previously mentioned studies point out that educators, who are prime agents of the implementation policy, are often not prepared to meet the needs of learners with significant disabilities and that they are also more reluctant than administrators and policy makers in this regard. However, a study by Heillier (1998) supported a wider, more positive view of integration by mainstream teachers. In addition, Heillier (1998) investigated six primary schools in Scotland where learners with severe learning difficulties were in the process of being integrated. The results revealed that teachers who had direct experience of integration held exceptionally positive attitudes towards the concept.

Researchers where teachers had active experience of inclusion reported contradictory findings (Villa, et al, 1996). This study yielded results that favoured inclusion of LSEN in the ordinary schools. The researchers noted that teachers' commitment often emerged at the end of the implementation cycle, after they had mastered the general professional expertise needed to implement inclusive programmes. The evidence seems to indicate that teachers' negative or neutral attitudes at the beginning of an innovation such as inclusive education may change over time.

Studies conducted in South Africa reveal that teachers have negative attitudes toward inclusion (Giangreggo, Baumgart & Doyle, 1995; Schechtman & Orr, 1996 ; Hay, Smit & Pavlsen, 2001; William, 2002; Mashiya, 2003; Naidoo; 2004;). In the study by Hay *et al* (2001:21) it was argued that the teachers who had negative attitudes, failed to implement inclusive education effectively due to a lack of educational and teaching support and

provision of skills. Another study by Giangreggio et al, (1995: 273) concluded that “providing inclusive education experiences for learners with disabilities can have a positive impact on learners without disability labels, partly because it provides school personnel with new opportunities to facilitate learning”.

A study conducted by Williams (2002) revealed that educators held negative attitudes towards mainstreaming. He also argues that in South Africa there were many teachers who were inexperienced, not well equipped and who lacked the confidence to teach LSEN. Williams (2002) further argues that lack of experience in the area of special education has been found to be a significant factor contributing to many educators’ fears and negative attitudes in dealing with LSEN. Schechtman and Orr (1996) mention that educators with positive attitudes towards inclusive education were also more prepared to change their classroom practices so as to accommodate learners with diverse learning needs.

In another study of educators’ attitudes towards inclusive education, Mashiyah (2003) showed that educators held negative attitudes towards inclusive education. Mashiyah (2003) also inferred that educators needed training in order to cope with the diverse needs of learners who are integrated in one classroom. A similar study by Naidoo (2004) involving 314 primary school educators, revealed that educators held negative attitudes towards the inclusion of the mildly mentally retarded learner. It was suggested that workshops be held to motivate educators to be positive about inclusive education. This study also indicated that the variables such as age, gender and Special Education qualification did not have any influence on educators’ attitudes.

The studies undertaken locally and abroad have revealed different educators’ attitudes towards inclusive education. On the other hand, the studies conducted abroad revealed that educators were more positive towards inclusion of learners with special needs in mainstream education than educators in South Africa. This might be due to the fact that in overseas countries most schools are well resourced; educators are adequately equipped

and have more skills and experience than in South Africa. Another reason might be that the concept “inclusive education” is newer in South Africa than in the first world countries. The reviewed literature is useful and relevant to the present study, since it provided background information on educators’ attitude towards inclusive education. The question that arises is “what are the educators’ attitudes towards inclusive education”? Very few studies are known and explored about the attitudes of primary school educators towards the inclusion of the mentally challenged learners into mainstream education. A study that will answer this question is necessary as it will provide significant insights into the policy of inclusive education. It is hypothesized that the change in educators’ attitudes will facilitate a successful implementation of inclusive education in primary schools. One is hoping that the situation of inclusive education will change with time.

## **1.2 Motivation for the study**

The significance and the contribution of the present study are enormous. It threw light on the views of teachers about inclusion of mentally challenged learners into the mainstream education. It has had an impact on the issues of inclusive education in primary schools. The empirical findings of this study would help the Department of Education to know the effects of inclusive education in primary schools and factors which influence educators’ attitudes in the Zululand region.

Several United Nations policies affirm the right of all learners to be valued equally, treated with respect and provided with equal opportunities within the mainstream system (Ainscow, 1995). These include the United Nations Convention on the rights of the Child (1989), the United Standard Rules for the Equalization of Opportunities for Persons with Disabilities (1991) and the UNESCO Salamanca Statement (1994). The above actions, indicate the government’s positive initiatives and effort to address the inequalities of the past. The most positive move is the introduction of inclusive education.

What greatly worries the researcher, is to see the pace that educators take for their fears, perceptions and beliefs to be transformed and to accept this inclusion policy. The researcher has also observed that most educators in KZN seem to have some reservations to accommodate LSEN. It was noted by Pijl et al, (1997) that the success of inclusive largely depends on educators' attitudes towards inclusion, so their attitudes need to be changed.

A number of studies have been concentrated on educators' attitudes towards inclusive education (Bochener & Pieters, 1989; Thomas, 1995; Center & Ward, 1997; 1997; Florian, 1998; Hay, Smit, & Pavlsen, 2001; Williams, 2002; Mashiya, 2003; Naidoo, 2004; Madikane, Nthangase, & Mayekiso, 2007; Mahammed, 2008), but very few studies in South Africa have been conducted, specifically on primary school educators attitude towards the inclusion of the mentally challenged learners into the mainstream education. It is therefore for this reason that the study of this nature should be conducted in order to fill the gap in this area.

The present study aimed at investigating primary school educators' attitudes towards the inclusion of the mentally challenged learners into mainstream education.

### **1.3 Statement of the problem**

The process of inclusive education in South Africa has had its "ups and downs" since its implementation in 1996. Knowing South African history and apartheid laws, it is not surprising to find that educators are still battling to cope with the changes in schools. Resistance to change was evidenced by tension and conflict in the classroom and in the community. One of the most important factors in determining success of such innovative programmes in inclusive education is educators' attitudes (Hay et al., 2001). Although inclusion is recognised as an important recent innovation, studies conducted on the attitudes of educators towards inclusive education have revealed negative attitudes. In particular, the attitudes of primary school educators seem to be affected by the number of factors such as educators' characteristics; inadequate resources and the lack of support

from DSTs (Cough & Lindsay, 1991; Engelbrecht, Green, Naicker & Engelbrecht, 2001). Most schools in Kwa-Zulu Natal (KZN) are full of educators with some preferences of certain categories of mentally challenged learners who could be integrated into mainstream education. The preferences are due to the fact that educators have a fear of including learners with special needs into mainstream education. This fear emanates from the fact that educators do not feel ready and well-equipped to handle learners with diverse needs.

In order for the inclusion to be effective, it is generally noted that the school personnel who are responsible for its success, like educators should be receptive to the principles and demands of inclusion (UNESCO, 1994). Over and above, educators' attitudes need to be changed and reshaped. It is therefore, noted that educators' attitudes may well act to facilitate or constrain the implementation of this policy, which may be radical or controversial.

#### **1.4 Aim of the study**

The principal aim of this study was to investigate primary school educators' attitudes towards inclusive education, particularly with regard to mentally challenged learners. Specifically, aimed to achieving the following:

- 1.4.1 To find out whether primary school educators held negative or positive attitudes towards the inclusion of mentally challenged learners in mainstream education.
- 1.4.2 To find out whether or not variables of gender, age, grade level taught, type of school, teaching experience and class size were related to the attitudes of educators towards the inclusion of mentally challenged learners in mainstream education:
- 1.4.3 To determine the category/categories of mentally challenged learners whom primary school educators preferred to be integrated into the mainstream.

## **1.6 Research questions**

This study sets out to examine and unravel answers to the following research questions:

- 1.5.1 Do primary school educators have negative or positive attitudes towards the inclusion of mentally challenged learners in mainstream education?
- 1.5.2 How are variables such as gender, age, grade level taught, type of school, teaching experience and class size associated with the attitudes of educators towards the inclusion of mentally challenged learners in mainstream education?
- 1.5.3 Which category/categories of mentally challenged learners do primary school educators prefer to be integrated into the mainstream?

## **1.6 Hypotheses**

In this study the following hypotheses were formulated and tested:

- 1.6.1 Primary school educators hold negative attitudes towards the inclusion of mentally challenged learners in mainstream education.
- 1.6.2 Variables such as age, grade level taught, gender, type of school, experience and class size do not have any relationship to primary school educators' attitudes towards the inclusion of mentally challenged learners in mainstream education.

## **1.7 Research methods**

This study utilized both analytical and quantitative descriptive approaches. The research sample comprised of 160 primary school educators in mainstream education, drawn from the Empangeni and Obonjenin school Districts. Purposive sampling was used to ensure that the research sample consisted of schools with LSEN.



A questionnaire was used to collect data pertinent to the aims of the study. With regard to data analysis, data related to the third research question were analyzed qualitatively, resulting in the construction of themes of meanings that emerged as the analysis progressed. The first two research questions were answered statistically through the testing of the corresponding hypotheses. The chi-square statistic was used for this analysis.

## **1.8 Operational definition of concepts**

### **1.8.1 Attitudes**

Butty (2001) states that attitudes are individuals' mental processes that determine both the actual and potential responses of each person within the social context. Attitude is always directed towards some object. In this study attitude refers to educator's state of mind towards the inclusion of mentally challenged learners in the mainstream. In other words, it refers to the way in which primary school educators perceive the inclusion of mentally challenged learners in mainstream education.

### **1.8.2 Mainstream Education**

The words "integration" and "mainstreaming" are used interchangeably. In this context, both refer to the education that will permit or accommodate learners who are mentally challenged in regular classrooms or in ordinary schools.

### **1.8.3 Inclusion**

Inclusion is a process of accommodating exceptional learners in regular classrooms. In this present study, the term "inclusion" refers to the process of educating mentally challenged learners i.e. underachieving learners, mentally challenged learners, learners with learning disabilities and gifted learners in normal schools.

#### **1.8.4 Mentally challenged learners**

Mentally challenged learners in this study are learners with various intellectual or cognitive difficulties, such as mental retardation, giftedness and underachievement. According to Green, Naicker and Naude (1995), some of these learners usually require modifications or adaptations of the curriculum and/or specially adapted teaching and learning strategies in order to be more effective.

#### **1.9 Summary**

The issue of inclusion of learners with special educational needs appears to be a major concern in a democratic society and South Africa's transforming education system. This, therefore, suggests that programmes that were designed to assist educators to cope with LSEN, and in the improvement of resources in schools, need to be scrutinised and educators' attitudes need to be examined.

The next chapter will review relevant literature. The aim of the literature study is to gain a comprehensive understanding of the educators' attitudes towards inclusive education. In undertaking this task, related literature is presented and discussed according to the study's aims and objectives.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

Not much research work has been done in South Africa with regard to the attitudes of primary school educators towards the inclusion of mentally challenged learners in mainstream education. However, much research has been done with regards to the attitude of parents, educators and learners towards the inclusion of learners with special needs. There is also evidence of much research on educators' attitudes towards the inclusion or integration of learners with special needs in mainstream education as well as of other inclusive subjects in South Africa (Osward, Engelbrecht & Steyn, 2000; Ball, 2000; Williams, 2002; Naidoo, 2003; Mashiya, 2004).

Investigation of inclusive education is a worldwide phenomenon. Presently, there is little evidence, if any, available locally on attitudes of primary school educators towards the inclusion of mentally challenged learners in mainstream education. Perhaps this is because inclusive education is a new concept which has emerged as a result of democracy, with little practice in the country. Although it is almost Sixteen years since inclusive education was introduced in this country (in 1994), there are still problems pertaining to its implementation. Nonetheless, this does not justify the non-existence of research work in this area.

Apartheid education in South Africa promoted race, class, gender and ethnic divisions, and emphasized separateness rather than common citizenship and nationhood. The fiscal allocation in terms of race, where the "white" education system enjoyed more funding, resulted in wide-scale disparities with regard to all aspects of education. This included quality of teacher training, resources at schools, location of schools' support materials and almost every aspect of educational service delivery (White paper 6, 2001).

This chapter reviews literature relating to the nature of educators' attitudes towards inclusive education. Categories of mentally challenged learners preferred to be integrated into mainstream schools are investigated, including variables which influence the educators attitudes towards inclusion of mentally challenged learners into the mainstream education.

## **2.2 Studies on the nature of educators' attitudes towards inclusive education**

An educator's attitude is a controversial issue in the teaching and learning situation and according to Bothma, et al, (2000), the attitudes of teachers play a critical role in the successful implementation of inclusive educational policy. Mainstream educators, on the other hand, are faced with teaching diverse classes of children who are underachieving, mentally retarded, mentally handicapped, gifted, etc. This results in the question of how educators manage to cope with the situation.

Educators' attitudes towards inclusion vary greatly across the education field. Numerous studies (Donaldson, 1980; Green, 1991; Thomas, 1997; Forlin, Tait, Carrol & Jobling, 1999; Steyn, 1999; Bothma, et al., 2000; Carrington & Brownlee, 2001; Drew & Egan, 2002; Avramidis & Norvich, 2002; Smith & Smith 2002; Hardmen, et al, 2002; Avramidis & Burden, 2004; Mohammed, 2006; Mdikane, et al, 2007) have been involved in research on educators' attitudes towards inclusion and the results reveal different attitudes. The majority of educators have strong negative feelings about inclusion and feel that the decision makers were out of touch with classroom reality (Snyder, 1999). Some educators feel under-qualified to provide these children with all the "special needs" that they require.

A study by Hardmen et al, (2002) on attitudes of primary school educators towards inclusive education revealed negative attitudes. In their study Hardmen et al, (2002) also mentioned that attitude barriers existed amongst the general education teachers because they did not feel prepared to work in an inclusive setting. The authors argued that their

lack of knowledge, training, and administrative support made them sceptical about including the special education child in the regular class.

An investigation by Bothma, et al, (2000) where two focus-group interviews were conducted with primary school teachers, three main patterns of concern emerged from the data. It was reported that primary school educators held a negative attitude towards inclusive education. In their study (Bothma, et al, 2000), it was emerged that it is advisable for the providers of in-service education and training to take note of such attitudes and attempt to assist educators in developing a more positive attitude and knowledge of inclusive education. In an effort to establish more positive attitude in general, it was suggested by Kubyana (2008) that the government needs to take note of this negative attitude and train educators towards a more accepting changing role.

Bothma, et al, (2004), conducted a study on primary school educators' attitude towards inclusion in two government primary schools in a middleclass suburb of Gauteng. The purpose of the research was to explore the attitudes of selected primary school educators towards an inclusive education policy. The results of the above mentioned study revealed a negative attitude of primary school educators towards inclusive education. The findings also indicated that educators felt that LSEN would be best served in separate educational facilities which are remedial or in special schools or special classes, rather than taking them in the mainstream. The educators involved in the study stated that they were not trained to cope with LSEN. This shows that educators' attitudes towards inclusive education in Gauteng are negative.

Avramidis, et al, (2004) on the other hand, conducted a study on "attitude of mainstream educators towards the inclusion of learners with special needs in the ordinary school" pinpointed that educators' attitudes could be affected by several factors such as the level and nature of support – that is current support services provided to assist them (educators). Another factor highlighted by these researchers is "the skills and qualifications that these educators held". These researchers (Avramidis, et al, 2004) show evidence in their survey that 81 of the educators (72% of the total) who have

diplomas on SEN or a Masters degree (or who have received simple in-service training) held significantly higher positive attitudes than those with little or no training about inclusion. However, the most important findings of these investigators are directly related to the participant's confidence in meeting the requirements of children with special educational needs. Therefore, teachers with substantial training demonstrated more confidence in meeting the requirement of SEN.

Another study by Smith and Smith (2002) found that teachers' negative attitudes towards children who are mentally challenged affect the children's self-esteem. These researchers also noted that educators have not developed an empathetic understanding of the disabling conditions that some children possess. Emad, Hamzah and Ibrahim (2003) opined that pre-service school educators' attitudes towards individuals with disabilities were negative. Vaughn, et al, (1996) in their study of educators' attitudes towards integration, discovered that the majority of educators who were not participating in inclusive programmes had strong negative feeling about inclusion.

Avramids et al. (2000) also conducted a study on "Educators' attitudes towards the inclusion of children with special educational needs in ordinary schools" in a single local authority in the United Kingdom. The investigators categorized the educators' attitudes into three components, i.e. the cognitive components, connotative component and the affective component. The sample comprised of 81 primary and secondary school educators. The findings revealed that teachers who had been implementing inclusive programmes showed more positive attitudes. Results also indicated that educators with university-based qualifications appeared to have more positive attitudes and to be more confident in dealing with learners with special educational needs (LSEN). This implies that educators who had started implementing inclusive education and had university qualifications hold more positive attitudes than those of their counterparts. Forlin et al, (1999), in their study of "Teachers' attitudes towards people with disabilities," supported the fact that pre-service school teachers who had at least weekly contacts with the disabled, held more positive attitudes towards children with disabilities.

Carrington and Brownlee (2001) argued that educators' attitudes and beliefs with regard to students with disabilities were among the most important issues influencing collaborative effort between special and general educators. It has also been argued that negative attitudes to disability led to low expectations of students, and may result in reduced learning opportunities and performance. Above all, these investigators categorized techniques used to reduce negative attitudes towards people with disabilities as follows: direct or indirect (media) contact, or exposure to people with disabilities; information about disabilities; the use of persuasive messages; analysis of the dynamics of the prejudice; disability simulation; and group discussion.

A recent study conducted by Steven (2005) on the "effect of teachers' attitudes towards inclusion on the practice and success levels of children with and without disabilities in physical education" revealed a mixed attitude. The study was to ascertain the relationship between physical education teachers towards the inclusion of children with mild and moderate mental disabilities and the amount of practice attempting to perform and the level of success attained by these children compared to their non-disabled peers. In this study it was evident that 10 teachers with more positive attitudes had higher expectations for their students motor performance; engaged in more in-depth lesson plan; used more teaching styles; and identified multiple focus areas or objectives. On the other hand, two teachers who were holding negative attitude towards inclusion were found not to be effective in their teaching.

It was suggested that the formation of positive attitudes and reduction discomfort and avoidance behaviour may be closely associated with careful exposure to people with disabilities who do not act in a stereotyped manner. For example, in the study conducted by Donaldson (1980), on "Changing attitude towards handicapped persons: a review and analysis research" declared that it is important for the success of direct contact interventions that the persons with the disability are perceived to have the same status as those people without disabilities. In the contrary, when a person with a disability is significantly younger than the people without, or is in a position to receive help as in a professional-client relationship, they may be perceived to be of non-equal status.

Donaldson (1980) concluded that structured student contact with a person of equal status who has disabilities and does not act in a “stereotypic manner” may then break down the negative stereotype related to people with disabilities.

Most studies (Bothma, et al., 2000; Emad, Hamzah & Ibrahim, 2003; Kubyana and Kgaugelo, 2008) on educators’ attitudes revealed negative attitudes towards inclusive education. These findings have major implications for structuring appropriate pre-service courses to ensure that teachers are able to cater for children with disabilities. According to Gething (1992), feelings of discomfort could be linked closely with negative attitudes, which in turn had been seen to be associated with low educational expectations of people with disabilities. In an attempt to raise teachers’ expectations for children with disabilities, and ameliorate negative attitudes towards them, it was proposed that compulsory pre-service courses should be developed to include direct contact on a regular basis with people with disabilities (Beckwith & Mathew, 1995).

### **2.3 Studies on the category/categories of mentally challenged learners which educators prefer to be integrated into the mainstream**

Although not much research has so far been conducted on the category/categories of mentally challenged learners that educators preferred to see integrated into the mainstream, some studies (Ward, Center & Bochner, 1994; Avramids, et al., 2000; Ward, Westwood & Graham, 2000; Skuy, Young, Ajam & Fridjohn 2001; Naidoo, 2004) have nevertheless been conducted in the area of educators’ attitudes towards inclusive education and they shed light on categories educators prefer to be integrated into the mainstream . Skuy et al, (2001), in their study of “integration and inclusive practice demand on teachers,” pointed out that all students stand a chance to benefit from a move towards more student-centered approaches to teaching and much greater flexibility in curriculum planning. In 1997, however, the Department of Education was more active in supporting a growing number of schools willing to integrate students with mild disabilities. These students included those with impaired hearing or sight, and others with mild autism. The department also encouraged and supported the placement of



students with mild to moderate intellectual capacity in regular schools. It still intends to retain a range of special schools to meet the needs of those with severe and complex disabilities who simply cannot cope with the environment or the curriculum of the ordinary school (Forlin, et al, 2004).

Various studies (Avramids, et al, 2000; Ward, et al, 1994; Westwood & Graham, 2000) have shown that attitudes and confidence of teachers vary significantly according to type and severity of students with disabilities. Emotional and behavioural disordered learners are commonly regarded as the most problematic and potential sources of stress. Forlin (2004) declares that teachers appeared to be more willing to integrate students with mild disabilities than those with more severe disabilities and those with challenging behavioural problems.

Another study (Blamires, 1999) on educators' attitudes towards integration reveals that, on the question of "Do secondary school educators' attitudes and beliefs about integration vary according to the type and severity of disabilities or difficulties the learner has?" – the results showed that teachers held the most positive attitudes towards the integration of students with diabetes, mild speech disorders (stuttering), epilepsy, physical disabilities, and those with minor impairment of vision. This study further indicated that the educators were less certain about the integration of students with more severe speech problems and those with severe vision or hearing problems. Negative attitudes were noted towards the notion of teaching mentally handicapped, gifted and normal children in the same classroom.

A study by Mushoriwa (2000: 142) revealed that the attitude of primary school teachers in Harare towards inclusive education with special reference to blind children was negative. This was evidenced by interviewing the sample of 150 educators and 400 parents. Likert-type questionnaires were also used to collect data. The survey research method was used to measure current attitudes of primary school educators towards inclusive education – and the inclusion of blind children in regular classes, in particular. The findings of this study revealed that educators did not favour the inclusion of blind

children in regular classrooms. The majority of educators also felt that blind children were not socially acceptable in regular classes.

Sadek and Sadek (2001) conducted a study of “attitudes towards inclusive education” in Egypt and implications for teachers’ preparation and training. They divided attitudes into three categories, namely academic attitude, social attitude and psychological attitude. Their study was based on a sample of 100 educators and 100 parents of which 50 came from public schools and 50 from special schools. Apart from the educators, 40 administrators were included, of which 20 came from public schools and another 20 from special schools. In other words the size of the sample was 240 (comprised of 100 educators, 100 parents and 40 administrators). The net result of educators’ attitudes towards the inclusion of disabled learners with their able-bodied peers was negative, while the sample showed a highly positive attitude towards such inclusion in terms of socialization between the two groups. In the case of disabled learners who showed intelligence, the dominant psychological attitude to the mixing of two groups was just average, while the psychological attitude towards the inclusion of less intelligent disabled learners was below average. The results imply that educators were positive about the social aspects of inclusion of disabled learners, since it allowed them to socialize with their siblings. However, on an intellectual and psychological level, attitudes towards the education of the disabled alongside their able-bodied peers were found to be more ambivalent and ranged from negative to positive.

A recent study conducted by Mohammed (2006) on “teachers’ attitudes towards inclusive education” declares that the majority of teachers ranked the needs of learners with emotional and behavioural difficulties as being most difficult to meet, followed by children with learning difficulties, followed by children with visual impairment, and followed by children with a hearing impairment. They attributed learners with sensory and physical impairments to the relatively infrequent existence at that time of these learners in the classes.

Similar findings by Madikana et al, (2007) on Pre-service educators' attitudes towards inclusive education, show that educators have a general hierarchy of conditions that were regarded as possible for inclusion. These researchers (Mdikana et al, 2007) highlighted that severe intellectually challenged learners were all considered least favourably, while medically and physically challenged learners were seen as most easy to manage. About 90 % of teachers felt that sensory impairments could be taught in mainstream classes. Only 10% of teachers supported the view for integrating learners with severe intellectual challenges and with multiple challenges.

Marshall, Ralph and Palmer (2001) also investigated the mainstream educators' attitudes towards the inclusion of children with speech and language difficulties. The study pointed out that ninety-five percent of respondents were in favour of mainstream schooling for children who stammer. Stammering is common in schools and does not hinder the learning of a child. The study, however, showed a less positive attitude to children with severe speech difficulties.

A study conducted by Cook (2001) entitled "A comparison of educators' attitudes towards their included students with mild and severe disabilities," discovered that educators appeared to form different attitudes and that their expectations of their included students with disabilities depended on the severity of learners' disabilities. It was noted that learners who were classified in the "attachment" category were seen as a pleasure to teach, whereas those in the "indifference" category were overlooked. In the "concerned" category, educators become intensely and personally involved with the learners. In the "rejection" category educators had given up on learners because of behavioural and social problems. The learners were further classified into groups with severe or obvious disabilities and those with mild and hidden disabilities. It should be noted that students who fell into the "obvious" category were categorized as mentally retarded.

According to Lewis and Doorlag (1995), learners with mild emotional disturbances constitute about seventy-five percent of learners with handicapping conditions. Childs (1996) administered a fourteen-item questionnaire to two hundred regular classrooms in

order to examine their attitudes towards the inclusion of educable mentally handicapped learners in regular classrooms. The findings of this study revealed that regular classroom educators did not prefer to include these learners in their classrooms. Basically, these learners had experienced significant rejection by regular classroom educators (Merriam 1999; Childs, 1996). Another study by Culliver (1991) compared the attitude that regular class educators exhibited toward learning disabled (LD), educable mentally retarded (EMR) and emotional disturbed (ED) learners in regular classrooms. The findings showed more favouritism towards learning disabled learners than towards emotionally disturbed learners or those who were educable mentally retarded. Educable mentally retarded learners were described by teachers as being a detriment to classroom instruction. Educators felt that the presence of these learners would hamper the academic growth of non-mentally handicapped learners in regular classrooms and even reduce the educators' competence, as stated by Feldman and Alttman (1985). The study also discovered that mildly handicapped learners who are mainstreamed developed a negative self-concept, which impacted on their gaining of acceptance from their teachers.

Bothma, et al., (2000) conducted a study on the attitudes of primary school educators towards inclusive education. The results of this study revealed that educators felt that learners with special educational needs would be best catered for in separate educational facilities, that is, remedial or special schools. They also felt that if learners had to attend therapy during instruction time, this could lead to greater complication, such as further lags in academic work. This may be pertinent to mentally retarded learners who are already termed as slow learners. Educators further reflect that standards would drop, in that normal learners would be neglected in order to cater for learners with special educational needs. In addition, this research indicated that educators felt it would be unfair to expect the normal learners to uphold the learners with special educational needs, when indeed their focus should be on their own education.

According to Farrell and Mittler (1998), when UK educators are presented with the prospect of accommodating a child with disabilities in their own class, attitudes become less positive. On the other hand, there is evidence from a research conducted by Forlin

(2004) of class educators' feelings which are negative and experiencing high level of stress and when a child with disability is placed in regular class.

The studies conducted locally and overseas about "the category / categories of LSEN that educators preferred to be integrated into the mainstream" revealed that most preferences range from mild to moderate and that educators are also selective regarding the types of learning disabilities. It would be interesting to know the variables that cause educators to prefer the integration of some categories as against others, that is, variables that influence their attitude.

#### **2.4 Studies on variables influencing attitude of educators towards inclusion of mentally challenged learners**

Studies (Donaldson, 1980; Jamieson, 1984; Hannah, 1988; Clough & Lindsay, 1991; Salisbury & Smith, 1993; Chazan, 1994; Beh-Pajoo, 1995; Villa et al., 1996; Simpson, 1996; LeRoy & Simpson, 1996; Robert & Lindsell, 1997; Marchesi, 1998; Carrington, 2000; Avramidis et al., 2000; Smith, et al., 2000 Al-khatteeb, 2002; Smith & Smith, 2002; Mashiya, 2004) on factors affecting educators' attitude were conducted. The existence of negative attitudes among some educators, which is the result of certain inevitable factors which educators experienced in their interaction with disabled learners in the classroom, has been noted. Factors to be considered are gender, age, grade, level taught, type of school, experience and class size.

Recent research conducted by Mashiya (2004), on "Attitudes of educators towards inclusive education in KZN" showed that variables such as age, gender, qualification, phase/grade taught and class size have an influence on educators' attitudes towards inclusive education. In this research, it was discovered that there were certain kinds of disabilities which cannot be handled by certain genders, for example, foundation phase learners who cry often and relieve themselves in class need the attention of a female educator. The research (Mashiya, 2004) findings revealed that qualifications affected educators' attitudes in a manner that educators must have relevant qualifications to handle such learners. It was also noted in the above study that some educators handled

overcrowded classes and thus affected their attitudes. The results of this research further showed that educators had preferences of phases they were teaching. A preference should be made since the results showed a relationship between grade/phase taught and educators' attitudes.

A finding contrary to that of Mashiya (2004) had been shown by Villa et al, (1996). They examined the relationship between independent demographic variables such as gender, age, phase taught and years of teaching experience, and teachers' attitude towards inclusion. These investigators stated that none of the above mentioned variables were found to be significantly related to the respondents' attitudes. Other researchers (Jamieson, 1984; Hannah, 1988) declared that the relationship between variables such as class composition, caseloads, empathy, school environment and exposure, and attitude had been inconsistent and what was evident from reviewing the relevant literature was that none of the afore-mentioned variables could be regarded as a strong predictor of educators' attitudes.

Teaching experience is perceived by several researchers (Clough & Lindsay, 1991; Chazan, 1994; Villa et al.,1996; Robert & Lindsell, 1997; Mohammed (2006) to have an influence on teachers' attitudes towards LSEN. Clough and Lindsay (1991) found that younger teachers and those with few years of experience were found to be more supportive of inclusion. Florian's study (2003) showed that acceptance of a learner with a physical disability was less to those educators who had six to ten years of teaching. The most experienced educators, more than 11 years of teaching were the least accepting. Robert and Lindsell (1997) also found that teachers with 14 years or less teaching experience had a significantly higher score in their attitude to inclusive than those with more than 14 years. This was also demonstrated by a survey conducted by Chazan (1994), which contended that educating students with significant disabilities in mainstream classrooms results in positive changes in educators' attitudes when teaching experience has accumulated. Previous research undertaken by Villa et al. (1996) confirmed this in that teacher commitment often emerged at the end of an implementation cycle, after the teachers had gained mastery of professional expertise needed to

implement inclusive programmes. Similar findings were reported by LeRoy and Simpson (1996), who studied the impact of inclusion over a three-year period in the State of Michigan. They discovered that attitudes changed in a positive direction over a 3 year period. Their study also indicated that as teachers experience with children with SEN increased, their confidence to teach these children also increased.

Mohammed (2006) conducted a study on teachers' attitudes towards inclusive education in Jordan and the factors that influenced that attitude. The sample consisted of 90 teachers at 7 schools. The results of this study revealed that another factor related to experience that had attracted considerable attention was knowledge about the children with special education needs during pre-service and in-service training. The importance of training in the formation of positive attitudes towards inclusive education was supported by the findings of Al-khatteeb (2002) and Beh-Pajoooh (1995). Marchesi (1998) also found that professional training of teachers was reported as one of the key factors of successful inclusion.

Another study conducted by Avramidis et al, (2000) also reported the influence of the lack of confidence in educators' attitudes. These researchers studied a survey, which involved 23 mainstream schools, fourteen primary schools and nine secondary schools – representing urban, suburban, and rural areas. The participants were identified in terms of gender, age, teaching experience, phase taught, professional development and experience, area of school, size of the school and size of the classroom. Results revealed that participants demonstrated a lack of confidence in meeting the requirements of Learners with Special Educational Needs (LSEN) and that, teachers with substantial training in special education held significantly higher positive attitudes than those with little or no training in inclusion.

Avramidis et al., (2002) in their observations, discovered that 40% of educators felt the need for systematic intensive training, either as part of their certification programmes, as intensive and well-planned in-service training, or as an ongoing process with specialists (acting as consultants). According to Thomas (1995), building inclusive schools will

require intensive on-going professional development as well as critical re-examination of the pre-service education of special education teachers. Educators from the mainstream schools need to increase their skills in teaching diverse learners (Green, 1991). In a study by Avramidis and Norwich (2002:139) on "Educators' attitudes towards inclusive education" it was discovered that the knowledge gained through formal studies during pre- and in-service training is crucial. The results of these investigations indicated that teachers who had been trained to teach students with learning difficulties expressed more favourable attitudes and emotional reactions to students with special needs than did those who had no such training.

Mohammed (2006) investigated teachers' attitudes towards inclusion in Jordan. The results revealed that there was little difference between the opinions of female educators and male educators. The overall findings of this study show that female educators are more positive than male educators. Similar findings by Beh-Pajoo (1992) discovered that female educators expressed positive attitudes towards the idea of integrating learners with behavioral problems than male educators.

Carrington and Brownlee (2001) in their study of "preparing teachers to support inclusion" investigated the interaction between a group of pre-school teachers and a teaching assistant who is disabled. These researchers argued that people who had high levels of contact with individuals with disabilities had been found to hold more positive attitudes towards children with disabilities. Carrington and Brownlee (2001) noted that educators' attitudes to people with disabilities are influenced by their past experiences and knowledge. In this study, it was discovered that this lack of experience caused negative attitudes and feelings of discomfort towards children with disabilities, in particular, towards those who were mentally challenged. Similar to findings reported by Carrington (2000), it was indicated that pre-services teachers who had more frequent contact with people with disabilities attributed less discomfort during interaction with them than did those who experienced little contact with them (Winter & Ellis, 1990). Winter & Ellis, (1990) also indicated that previous experience with people with disabilities had a powerful effect on the way educators viewed children with disabilities.



In fact, structured experience with individuals with disabilities consistently resulted in positive attitude changes, whereas unstructured social or professional contact had equivocal results (Donaldson, 1980). According to Smith, et al, (2002), several factors played vital roles in making an inclusive programme a success. The responsibility does not only lie with the general education educator alone, as the support of the special education educator, school administration, school counsellor and special education students' parents is also needed. Besides, general educators themselves need to change the way they perceive learners with SEN and accept them (Smith, et al., 2000).

Inclusion should begin as early as in primary grades. It is an important factor in achieving a successful inclusion programme if these children are included right from the start. Beginning at an early age, these children, along with the general education children, will work side by side in an environment that represents their future. Again, the educators' focus should reflect the needs of the child in order to achieve the goals they set for the children (Sarisbury & Smith, 1993). Educators' complaints usually focus on lack of training (as applicable to both undergraduate students and in-service training for educators), class sizes (which should reflect realistic student/educator ratios, as well as the number of educational students per group); time for planning with special education educators and for making lesson plans, and support assistance from regular education paraprofessional, special education class and by school administration.

## 2.5 Summary

In an empirical investigation, the literature is the first phase and allows the researcher to place the study within the bigger picture of what is known (Merten, 2005:88). This phase is fundamental to assist with answering the research problem and the various questions it poses. This literature study looked at educators' attitudes towards inclusive education.

Studies on educators' attitudes towards inclusion of LSEN, both local and abroad, have been reviewed in this chapter. Although it is noted that most educators hold negative

attitudes towards the inclusion of LSEN, some educators do have positive attitudes in this regard. Many factors that contribute to this state of affairs have been highlighted. These include lack of in-service training and experience, lack of support to educators on the part of the providers of support services, inadequate resources and class sizes.

The research design and methodology that guides the present study will be discussed in the next chapter.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

Literature review has revealed that educators tend to have negative attitudes towards inclusive education. The major factors that affect their attitudes have also been reviewed. The literature review has also revealed that educators prefer certain categories of mentally challenged learners to be integrated in the mainstream education.

This chapter presents and discusses the research design, method of data collection, population and sample as well as method of data scoring and analyses. This chapter also describes the reason behind the methodology used and how the research was conducted.

The purpose of this study was to determine the primary school educators' attitudes towards the inclusion of mentally challenged learners in mainstream education. In particular, the research sought to find out the disposition of primary school educators towards the inclusion of mentally challenged learners in mainstream education; to determine the category / categories of mentally challenged learners whom primary school educators preferred to be integrated into the mainstream, and to investigate whether or not the following variables: age, grade level taught, gender, type of school, educators' experience and class size were related to the attitudes of educators towards the inclusion of mentally challenged learners in mainstream education.

### **3.2 Aims of the study**

The aims of this study were:

- 3.2.1 To find out whether primary school educators held negative or positive attitudes towards the inclusion of mentally challenged learners in mainstream education.

- 3.2.2 To find out whether or not variables of gender, age, grade level taught, type of school, teaching experience and class size were related to the attitudes of educators' towards the inclusion of mentally challenged learners in mainstream education.
- 3.2.3 To determine the category/categories of mentally challenged learners whom primary school educators preferred to be integrated into the mainstream.

### **3.3 Hypotheses**

In this study the following hypotheses were formulated and tested:

- 3.3.1 Primary school educators hold negative attitudes towards the inclusion of mentally challenged learners in mainstream education.
- 3.3.2 Variables such as age, grade level taught, gender, type of school, experience and class size do not have any relationship to primary school educators' attitudes towards the inclusion of mentally challenged learners in mainstream education.

### **3.4 Research design**

The present study employed a non-experimental research design of the quantitative descriptive type. This design is used to describe the existing status of events (Merriam, 1998). In most literature, quantitative descriptive research and surveys are used interchangeably (Mashiya, 2004). Previous studies on inclusive education conducted locally (Rose, 2001; Williams, 2002; Nkabinde & Ngwenya, 1996; Hay, et al, 2001), have used this design. A number of researchers abroad (Burns, 1999; Heiman, 2001; Mukherjee, Loghtfoot & Stoper, 2000; Larrivee & Cook, 1979) have also used this research design in their studies of inclusive education. Descriptive designs seem to be frequently used in various studies of inclusive education. This design was appropriate for this study, since the researcher aimed to determine the disposition of primary school

educators' attitudes towards the inclusion of mentally challenged learners in mainstream education.

### **3.5 Sampling method**

The researcher used purposive sampling to select the participants or respondents. This technique involves collecting data from information-rich participants about the phenomena under investigation (Welman & Kruger, 2001). In the current study, it provided relevant data and current information about educators' attitudes towards integration of mentally challenged learners. In studies involving educators' attitudes towards inclusive education, researchers have also used various sampling techniques such as random sampling, stratified, accidental and purposive sampling (Keith, 1998; Forlin, 1999; Oswald et al, 2001; Madika, et al., 2007). Previous studies (Hay *et al.*, 2000; Williams, 2001) on teacher preparedness for inclusive education have used purposive sampling. Furthermore, Baines (1997) targets female teachers of primary schools in his study.

The target population in the present study were primary school educators who were involved in mainstream education, remedial schools, resource centres, and full service or combined schools. The researcher chose eight primary schools from Empangeni (Lower Umfolozi) and Obonjeni districts in KZN. The sample consisted of 160 educators, who were drawn from the population of primary schools in the above-mentioned districts. These schools were selected because they included educators who taught a variety of LSEN and reflected the disposition of educators towards the inclusion of mentally challenged learners in mainstream education. Furthermore, selecting these schools limited the cost and time factors.

### **3.6 The method of data collection**

In this study, the researcher developed a questionnaire on the basis of the aims and the reviewed literature (ANNEXURE A). This tool was used to collect data. The researcher

used it because it guaranteed confidentiality and thus elicited more truthful responses. The questionnaire included both fixed response items and open-ended questions. It was made up of 3 sections, which were structured as follows:

- 3.6.1 Section A, covered biographical data of respondents, namely, age, grade level taught, gender, type of school, teaching experience and class size.
- 3.6.2 Section B consisted of 33 structured items or statements, aimed at determining the educators' attitudes towards inclusion and the influence of variables on educators' attitudes. These statements were categorised into: 12 belief components, 13 feeling components and 9 action tendency components.
- 3.6.3 Lastly, section C consisted of one open-ended item requiring respondents to indicate the category or categories of mentally challenged learner they would prefer to be included in mainstream education and they were also required to justify their preferences.

Previous researchers on their studies (Sabathini, 2001; Avramidis et al., 2002; Avramidis and Norwich, 2000) of educators' attitudes towards inclusive education have used different tools to collect data. Among other things, structured interviews, focus group interviews, direct observations, assessment scales, documents and questionnaires have been used. In the studies conducted by Mary (2000), Nadoo (2004), Mahammed (2006) and Madika, et al (2007) a questionnaire was used to collect data on subject attitude. Madika, et al (2007) administered a questionnaire in their study of pre-service educators' attitudes towards inclusive education to 22 full time students of the University of Witwatersrand. A questionnaire developed by Choles (1997) was adopted and consisted of the following sections: Section A, focused on participants' biographical data and section B covered objective questions with 25 attitude items. This instrument was used in this study for a similar purpose. Another study by Naidoo (2004) used a questionnaire. The questionnaire enabled the researcher to derive information on educators' attitudes. The questionnaire consisted of both closed and open-ended questions. Section A, covered biographical data of respondents; Section B consisted of 25 objective items or statements. Another study by Mohammed (2008) on teachers' attitudes towards inclusive education also used a questionnaire, involving 90 teachers at 7 schools. The questionnaire consisted

of one open-ended section, which covered the following information: grade level and types of subject of the participants; description of the disabilities; and physical and educational adaptations that had been made to meet the educational needs for their students.

### **3.7 Validity and reliability**

Validity relates to the extent to which the instrument measures what it is supposed to measure (Cohen, Manion & Morris, 2007). Reliability on the other hand, refers to a degree of confidence regarding the results of the measuring instrument (Cohen et al., 2007).

A trial run of the questionnaire (pilot study) was done in order to assess the appropriateness of the instrument and solve unanticipated problems. This helped in highlighting problem areas and to select items for use in the final study.

An internal consistency method of item analysis was used in a test run to check the validity and the reliability of the questionnaire. Internal consistency has to do with correlation among items. If the items are linked and related to one another, this will prove that there is an internal consistency among them (Neuman, 2001). Cohen, et al (2007: 50) provided the following guidelines for the alpha reliability coefficients:

- $>0.90$  : Very highly reliable
- $0.80-0.90$  : Highly reliable
- $0.70 -0.79$  reliable
- $0.60 -0.69$  : Marginal/ minimally reliable
- $<0.60$  : unacceptable low reliability

The internal consistency index among items in the pilot study yielded an alpha co-efficients of between 0.74-0.82. It is, therefore, concluded that the items of the questionnaire can be deemed reliable.

### 3.8 Ethical considerations

The researcher ensured complete confidentiality of the information with informed consent forms signed by all participants (ANNEXURE B). The participants were made aware of the fact that their involvement in the research project was voluntary. In other words, they were not forced to be part of the study. Participants were also aware that they had a right to withdraw from the study if they felt like it. The researcher ensured anonymity by requesting the participants not to write their names on the questionnaires.

### 3.9 Method of scoring and data analysis

A Likert-type ranking scale with five response categories was used, namely: strongly agree (SA), agree (A), undecided (U), disagree (DA) and strongly disagree (SD). In this study, a scale was devised by assigning the value of 5,4,3,2, and, to statements which are positively worded, while those which are negatively worded were assigned the values of 1, 2, 3, 4, and 5.

**Table 3.1 A Likert-Type ranking scale**

RESPONSE	Strongly agree (SA)	Agree (A)	Undecided (U)	Disagree (D)	Strongly Disagree (SD)
<b>POSITIVELY WORDED</b>	5	4	3	2	1
<b>NEGATIVELY WORDED</b>	1	2	3	4	5

Many researchers (Naidoo, 2004; Skuy, et al; Avramids, et al, 2000; Ward et al., 1994; Majova, 2004) used Likert scale with five categories.

In other words the raw data obtained from questionnaire were converted to a quantitative form by coding. Fifteen statements were positively worded and 18 statements were



negatively worded. The scoring was reversed for negatively worded items. The highest score in this scale used is  $33 \times 5 = 175$  and the lowest score was  $33 \times 1 = 33$ . The total score for each person was obtained by adding up score of individual items (ANNEXURE E). This formula was also used by previous researchers in their studies of attitude (Sibaya, Sibaya & Mugisha, 1996: 38; Majova, 2002:27; Mashiya, 2003: Nadoo, 2004:).

Data were analysed by using qualitative and quantitative methods. Findings were analysed manually and the Computerised Programme called Statistical Package for social Sciences (SPSS) was used to capture data. Frequencies were used to analyse biographical data and a Chi-Square of one sample and two sample tests was used to calculate data on the observed and expected frequencies. To test the association between variables of gender, age, grade level, class size, experience in years and the school type, the Person Chi-square was used. The degrees of freedom that complied with all the tests that were used are one, two, six and eight. The alpha level of 0.05 was chosen.

The open-ended question which measured the category / categories of primary school educators preferred to be integrated into the mainstream education was analysed qualitatively by organising data into meaningful themes and organized according to frequency of appearance. In addition, the interpretative approach was applied to identify categories.

### **3.10 Planning for the administration of the research instruments**

Permission to conduct research in schools of Lower Umfolozi district was sought from the district manager (ANNEXURE C). Once permission was granted each school was contacted telephonically to make appointments and to explain the purpose of study. Thereafter, the researcher visited the schools and letters requesting for the permission to conduct the study from the principals were handed over by the researcher (ANNEXURE D). The questionnaires were distributed to the relevant schools. The principal or his or her designate in each school was asked to distribute the questionnaires to the educators.

### **3.11 Summary**

This chapter focused on the research methods used in the study. The methods that were used in this study were tested and used by other researchers and they are believed to be relevant in yielding best results. The study sample, presentation and analysis of data will be presented in the next chapter (chapter 4).

## CHAPTER 4

### Presentation and analysis of data

#### 4.1 Introduction

In chapter three the research methods used in the study were discussed. This chapter deals with the presentation, analysis and interpretation of data including the statistical testing of hypotheses. The chapter concludes with the discussion of findings.

#### 4.2 The pilot study sample

The pilot study was conducted on a group of 30 educators who were teaching in both mainstream and remedial schools at Empangeni district in KZN, before submitting the “research instrument” for final study. Educators who participated in the pilot run were excluded from the final study.

#### 4.3 Administration of the research instrument in the pilot study

Table 4.1 below presents the distribution of subjects in the pilot study.

**Table 4.1** Distribution of subjects in the pilot study (n=35)

Criteria	Levels			
	Males		Females	
Gender	04		31	
	11.4%		88.6%	
Age in years	21-30	31-40	41-50	51+

	9 25.7%	6 17.1%	17 48.6%	3 8.6%	
<b>Grade level taught</b>	<b>Grade R-1</b>	<b>Grade 2-4</b>	<b>Grade5-7</b>		
	6 17.1%	10 28.5%	19 54.3%		
<b>Teaching experience in years</b>	<b>0-5</b>	<b>6-10</b>	<b>11-15</b>	<b>16-20</b>	<b>21+</b>
	4 11.4%	5 14.3%	15 42.9%	3 8.6%	8 22.9%
<b>Type of school</b>	<b>Mainstream</b>		<b>Remedial Centre</b>		
	25 71.4%		10 28.5%		
<b>Class size</b>	<b>36&amp; below</b>		<b>37-46</b>	<b>67+</b>	
	09 25.7%		25 71.4%	1 2.9%	

Table 4.1 shows the distribution of participants in the pilot study. The biographical data and variables background such as gender, age, grade level taught, teaching experience, type of school and class size are indicated. The pilot study was conducted on 35 primary school educators from a Remedial Centre (25) and a Mainstream School (10) in Empangeni District. There were 4 males and 31 females. The age distribution of the participants is given in Table 4.1. This table shows that 19 educators teach in grades 5-7, 10 educators teach in grades 2-4 and only 6 educators teach in grades R-1. Educators' teaching experience ranged from 0-21 years and above. The majority of the educators had between 11-15 years of teaching experience. Of the educators who anticipated in the pilot study, 25 were teaching class sizes of between 37-46 learners.

The researcher distributed the questionnaire to educators to complete, and the completed questionnaires were collected on the same day of distribution (pilot study). Educators did not experience any difficulties in completing the questionnaires as the instructions were clearly stated.

Slavin (1989: 65) supports the pilot testing of the research instrument. He argues that it is quite difficult to construct perfect protocols, but it is always wise to pilot the instrument, so that weaknesses can be detected and corrected. According to McMillan & Schumacher (1997), the main purpose of this exercise is to allow for the elimination of ambiguous questions. To this end, the piloting in this study achieved its aims.

#### **4.4 Factor analysis of 41 items**

Factor analysis is utilized in test construction to determine a set of items and select those that are homogenous (Neuman, 2000). In the context of this research, the variables were the degree of agreement with various specific attitude statements (from parts A and B of the questionnaire), and the factors were the general underlying attitudes.

By doing factor analysis, the researcher intended to extract three factors. Finally, a total of 33 items that withstood the process of item analysis explored the following factors:

4.4.1 Educators' beliefs regarding educating the mentally challenged learners were explored by a total of 12 statements.

4.4.2 Action tendency by educators when confronted with educating mentally challenged learners were explored by 13 statements.

4.4.3 Educators' feelings towards educating mentally challenged learners were explored by 9 statements.

The open-ended question was not part of the item analysis process.

Table 4.2 below illustrates factor loading of the 41 items (item analysis).

**Table 4.2 Factor analysis: Factor loading of the 41 items**

Item	Factor			Estimated communality
	1=B	2=F	3=A	Extractions
1.	.444	.726	.435	.780
2.	.478	.434	.428	.842
3.	.424	.421	.727	.442
4.	.675	.734	.110	.664
5.	.223	.686	.689	.672
6.	.059	.341	.121	.357
7.	.690	.454	.488	.446
8.	.668	.463	.464	.421
9.	.828	.474	.464	.783
10.	.630	.43	.459	.633
11.	.199	-.062	.262	.251
12.	.602	.969	.480	.295
13.	.094	.040	.034	.368
14.	.719	.302	.628	.702
15.	.788	.588	.466	.423
16.	.506	.574	.432	.750
17.	.712	.425	.491	.565
18.	.487	.618	.441	.545
19.	.575	.437	.920	.745
20.	.770	.495	.836	.729
21.	.580	.478	.599	.352
22.	.496	.745	.898	.686
23.	.467	.428	.431	.381
24.	.656	.428	.424	.365
25.	.534	.451	.727	.391

26.	<b>.775</b>	.444	.422	.663
27.	<b>.524</b>	.423	<b>.450</b>	.516
28.	.471	.481	<b>.622</b>	.251
29.	.436	.483	.427	.406
30.	.436	.452	.429	.476
31.	.434	<b>.637</b>	.422	.637
32.	.726	.726	.435	.644
33.	.464	.461	.440	.291
34.	.354	.276	.192	.336
35.	-.189	.221	.109	.284
36.	.080	.182	.220	.650
37.	.029	.079	.257	.334
38.	.733	.420	.451	.565
39.	.145	-.230	.241	.259
41.	.226	-.026	.254	.294

The first column in Table 4.2 contains the number of items. The second column contains factor one loading (Belief components); the third column contains factor two loadings (feeling components). The fourth column contains factor four loadings (Action tendency components) and the last column contains estimated communalities. These factor loadings are expressed as correlation coefficients between factors and items. They give the extent or degree to which an item is related to the factor. This table also indicates that items in bold type have the highest loadings on the first factor. All these items which are in factor one measure belief components; those in factor two measure feeling components, and factor three measure action tendency components.

The cut-off point of .42 was chosen for the pilot study. All the items below the cut-off points were discarded. Using .42 as the cut-off point, the 8 items were discarded: 6, 11, 13, 34, 36, 37, 40, & 41, All items above the cut-off point were retained, 33 items were

retained and item numbers are 1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 38 & 39.

Out of the 41 items, 8 were discarded from the final scale –leaving 33 items in the questionnaire for final study.

#### 4.5 Results of the final study sample

The researcher selected eight schools, that is, four schools each from Empangeni and Ubonjeni districts.

Table 4.3 presents the distribution of the participating school for each district.

**Table 4.3 Distribution of schools in the research sample (n=8)**

Province	Region	District	Schools in the sample
Kwa-Zulu Natal	Zululand	Empangeni	04
	Zululand	Obonjeni	04

The table above shows the regions and the schools where the empirical study was conducted. In Kwa-Zulu Natal, one region (Zululand) was selected.

**Table 4.4: Gender distribution of subjects (n=160)**

	Number	Percent
Male	44	27.5
Female	116	72.5
TOTALS	160	100

There were more females than males in the research sample. The age distribution is presented in Table 4.5.



**Table 4.5: Age distribution of subjects (n=160)**

Age (Years)	Number	Percent
21-35	91	56.9
36-45	50	31.3
46-55	30	18.6
50 & above	3	1.9
TOTALS	160	100

Table 4.5 shows that the majority of the educators fell between the ages of 21-35. This shows that the sample comprised teachers of early adulthood age, perhaps with opinions and attitudes leaning towards the culturally conservative end of the spectrum.

Following on the age of the respondents, it was also important to profile the respondents' years of teaching experience. This is given in Table 4.7.

**Table 4.6: Teaching experience (n=160)**

Years	Number	Percent
1-5	48	30
6-10	57	35.6
11-15	2	1.3
16-20	1	0.63
21 & above	6	3.8
TOTALS	160	100

Table 4.6 indicates the number of respondents in the various teaching experience categories. Educators with 6-10 years of experience are carrying the largest loading, followed by 1-10. Table 4.7 illustrates grade distribution of subjects.

**Table 4.7: Grade distribution of subjects (n=160)**

<b>Grade</b>	<b>Number</b>	<b>Percent</b>
Grade R-1	58	36.3
Grade 2-4	28	17.5
Grade 5-7	74	46.2
<b>TOTALS</b>	<b>160</b>	<b>100</b>

The grade level taught by the educators in the research sample was also an important variable to look at. The profiling of the educators by grade levels taught is captured in Table 4.8. The table below illustrates the type of school in which educators work.

**Table 4.8: School Type distribution of subjects (n=160)**

<b>Age (Years)</b>	<b>Number</b>	<b>Percent</b>
Full Service School	26	16.3
Resources Center	13	8.1
Mainstream School	96	60
Remedial Center	15	9.4
<b>TOTALS</b>	<b>160</b>	<b>100</b>

According to the information reflected in table 4.9, the majority of educators were from the Mainstream School, followed by Full Service School, Resources Centre and Remedial Centre have a least loading. The class size at which the respondents taught is presented in table 4.9.

**Table 4.9: Class size distribution of subjects (n=160)**

Years	Number	Percent
32 & below	33	30
33-42	62	35.6
43-52	22	13.8
53-62	27	16.9
63 & above	16	9.9
TOTALS	160	100

Class sizes to which respondents taught are illustrated in table 4.10. The majority of educators (95) taught class sizes of 32-42. About 49 participants who taught class sizes with learners who are between 43-62, only 16 educators taught classes with 63 learners and above.

#### 4.5.1 Hypothesis number one

##### Reiteration of hypothesis number one

Primary school educators from the Zululand-region hold negative attitudes towards the inclusion of mentally challenged learners in mainstream education.

**Table 4.10 the disposition of educators' attitudes (n= 160)**

	Positive Attitudes	
	Negative	Positive
Frequency	96	64
$\chi^2 = .380$	at df=2	p>.05

The observed  $\chi^2 = 380$  at  $df = 2$  was not significant at .05 level of confidence. The hypothesis that educators held negative attitudes towards the inclusion of mentally challenged learners is therefore rejected. The observed attitudes were due to chance

factors. About 60% of these educators were negatively inclined towards the inclusion of the mentally challenged learners in mainstream education.

#### 4.5.2 Hypothesis number two

##### Reiteration of hypothesis number 2

Variables such as age, grade level taught, gender, type of school, experience and class size are not significantly related to educators' attitude towards the inclusion of mentally challenged learners in mainstream education.

**Table 4.11 Gender versus educators' attitudes (n=160)**

Gender	Attitude				Total
	Negative	%	Positive	%	
Male	28	64	16	36	44
Female	68	59	48	41	116

$\chi^2 = .385$

at df =2

p>.05

The outcome of the analysis was  $\chi^2 .385$  (.05) which was not statistically significant against the critical value of 5.991 at df 2. This means that male and female educators do not differ in their attitudes towards the inclusion of mentally challenged learners in mainstream education. The hypothesis that gender is not related to attitudes towards the inclusion of the mentally challenged learner in mainstream education is upheld. It is concluded that male and female educators do not differ with regard to their attitudes towards the inclusion of the mentally challenged learners in mainstream education. About 36% males are positively inclined whereas 64% females are positively inclined\* towards the inclusion of the mentally challenged learners in mainstream education.

**Table 4.12 Age versus educators' attitudes (n= 160)**

Age	Attitude				Total
	Negative	%	Positive	%	
21-35	47	52	44	48	91
36-45	18	36	32	64	50
46-55	19	63	11	37	30
56+	1	33	2	67	3
					<b>160</b>

$\chi^2 = 2.70$  at df 6  $p > .05$

Table 4.12 indicates age variation of respondents, which is from 21 years to 56 and above. The outcome of the analysis was  $\chi^2$  2.70 at .05 (df=6) which is not statistically significant. The critical value at df 6 is 12.592. The calculated value is less than the expected value. The hypothesis that age is not significantly related to primary school educators' attitudes towards the inclusion of mentally challenged learners in mainstream education is retained. The alternative hypothesis is rejected. It is concluded that the variable of age is not related to the educators' attitudes towards the inclusion of mentally challenged learners in mainstream education. Educators who fall between the ages of 33-45 are 65% positively inclined and those educators who are 56 and above were 67% positively inclined towards the inclusion of mentally challenged learners in mainstream education.

**Table 4.13 The grade level taught versus educators' attitudes (n= 160)**

Grade level taught	Attitude				Total
	Negative	%	Positive	%	
Grade R-1	26	49	32	51	58
Grade 2-4	17	61	11	39	28
Grade5-7	53	72	21	28	74
<b>Total</b>					<b>160</b>

$\chi^2 = 12.177$  at  $df=4$   $p < 0.5$

Table 4.13 shows the grade levels at which respondents taught versus educators' attitudes. The calculated  $\chi^2$  value of 12.1 exceeds the tabled value at the level of significance which is 05 (9.488) at  $df=4$ . The results are significant, therefore the alternative hypothesis (H1) is upheld and the null hypothesis H0 is rejected. The alternative hypothesis that grade variable is associated with educators attitudes has been confirmed.

**Table 4.14 Educators' teaching experience versus educators' attitudes (n=160)**

Teaching Experience	Attitude				Total
	Negative	%	Positive	%	
1 -5 years	27	56	21	44	48
6 -10 years	31	46	26	54	57
11 -15 years	30	71	12	29	42
16 -20 years	02	40	03	60	05
21 and above	06	75	02	25	08

$\chi^2 = 6.314$  at  $df=8$   $p > .05$

Table 4.14 shows the calculate value of 6.314 at df=8. The critical value at alpha =0.05 is 15.507. The null hypothesis (H0) is therefore upheld, i.e. that there is no significant correlation between the variable of educators' teaching experience and educators' attitudes towards the inclusion of mentally challenged learners.

**Table 4.15 Type of school versus educators' attitudes (n= 160)**

School Type	Attitude				Total
	Negative	%	Positive	%	
Full service school	14	52	12	48	26
Resources Centre	04	67	09	33	13
Mainstream school	59	33	33	23	96
Remedial School	13	87	02	13	15

$\chi^2 = 7.689$

at df= 6

p>.05

Table 4.15 shows whether educators' attitudes are influenced by the type of school type in which they work. A calculated value  $\chi^2$  of 7.689 was obtained at df=6. The critical value is 12.952. This means educators from various types of schools do not differ in their attitudes towards inclusion of the mentally challenged learners in the mainstream. The hypothesis that there is significant difference between school type and educators' attitudes towards inclusive education is not upheld. The null hypothesis is tenable. It is concluded that educators from full service school, remedial school, resources centre and mainstream schools all do not differ with respect to their attitudes towards mainstreaming.

**Table 4.16 The influence of class size on educators' attitudes (n= 160)**

Class size	Attitude				Total
	Negative	%	Positive	%	
32 and below	19	58	14	42	33
33-42	36	58	26	42	62
43 -52	13	59	09	41	22
53 -62	17	63	10	47	27
63 and above	11	69	05	31	16

$\chi^2 = 5.031$

at df=8

p>.05

Table 4.16 shows the class sizes that the educator respondents taught. A  $\chi^2$  value of 5.031 at df=8 was obtained against the critical value of 15.507. This implies that there is no significant relationship between the variable of class size and educators' attitudes towards the inclusion of mentally challenged learners into the mainstream. Therefore, the null hypothesis (H0) was retained and the alternative hypothesis (H1) was rejected.

### 4.5.3 Categories of mentally challenged learners

An open-ended question on the categories of mentally challenged learners that educators preferred to be included in mainstream education was asked. Mentally challenged is categorized by Landsberg, et al (2005) as follows:



**Table 4.17: The classification of mentally challenged learners**

CLASSIFICATION	DESCRIPTION
Giftedness	IQ is superior (from 130 and above)
Gifted underachiever	IQ is superior but the child is performing below his/her intellectual capacity due to restraints.
Learning disability	IQ is average or above but there is an impairment in one of the psychological processes i.e. aphasia, dyslexia, acalculia, etc.
Mental retardation (MR)	<ul style="list-style-type: none"> <li>• Mild MR</li> <li>• Moderate MR</li> <li>• Severe MR</li> <li>• Profound MR</li> </ul>

Educators were required to state any of the above mentioned category / categories to whom they would prefer to be included in mainstream education. From their responses the following emerged:

#### **4.5.3.1 Mild and moderately mentally retarded learners**

The majority of educators (60%) reported that they preferred mild and moderately mentally retarded learners to be included in mainstream education:

*“Only mild and moderate mentally retarded learners can be included into the mainstream schools”*

*“...Maybe mild mentally retarded and / or moderate learners can be included but definitely not profound to severe ones”.*

A note of caution was introduced when one of the educators expressed the view that although this category is preferred, training was needed in order for them to cope with challenge: *“...The mild and moderate mentally retarded learners can be integrated in the mainstream but still teachers have to be trained so that they can cope with challenges that can come up with mixing”.*

One participant from the full service school also supported the above view:

*"...Mild and mentally challenged learners could benefit from inclusive education but training is of utmost importance since working with such children requires exposure and training"*.

In addition, another educator expressed the different view that *"...Mild and moderate mental retardation should be included, but in foundation phase only"*.

#### **4.5.3.2 Gifted learners and gifted underachievers**

Some educators (30%) indicated that they would prefer the gifted underachiever and gifted learner to be included. In support of this view one educator from the mainstream school indicated that *"...The only learners that I would integrate in mainstream school, are gifted learners and underachievers"*. Another educator stated *"...Gifted learners can be integrated into mainstream but to achieve their potential, they will need more. A gifted under-achiever can be helped if the trouble is taken to find out what the problem is and then attempt to remediate"*.

Overall, it may be said that the respondents mainly indicated that the gifted and underachieving learners could be accepted in the mainstream education only if there were enough resources and support.

Furthermore, participants support the view that: *"...Gifted and gifted underachieving are the only categories to be included in the mainstream school"*.

*"...Gifted learners and gifted underachievers should be included in the mainstream only if educators are well-equipped to handle mentally challenged learners and there are also inadequate resources in mainstream schools"*.

*"...More suited are those who are underachieving and gifted"*.

#### 4.5.2.3 No category / categories preferred

Although the majority of the participants preferred certain categories of mentally challenged to be included in mainstream , some participants (10%) were sceptical about the inclusion of these learners in mainstream schools since they felt that they were not ready for such inclusion and there are insufficient resources. To make it more effective, a teacher from mainstream school revealed that *“...I would prefer learners with physical challenged but not mentally challenged”*.

Another teacher of the same idea indicates that *“...I don't feel that any mentally challenged learner can be included in the mainstream classroom, as their needs are very different needs and they learn in different ways. I also feel that it would affect the child emotionally rather benefit”*.

Some participants also felt that if mentally challenged learners were included in mainstream schools, teaching and learning processes would be interfered with. One of the educators said: *“...This is not possible, Other children in the mainstream will be placed at a disadvantage because all my time will be spent on the mentally challenged learners. Hence, the standard of education, in general would decline”*.

There was also a view that the educator-learner ratio makes inclusion of LSEN in mainstream schools impossible: the class sizes are large, schools are understaffed and mentally challenged learners need individual attention. Other respondents from Empangeni districts raised strong concerns that it would not be easy to include these learners in mainstream classroom, since classes were overcrowded. Their concerns were indicated in this manner:

*“I can't really prefer any of these learners to be integrated because there are already too many learners in one class; they will not get the attention they need”*.

*“...All this is pie in the sky until they reduce the pupil/ teacher ratio - that is the bottom line as to whether inclusion of mentally challenged learners will work or not”*.

*“Not a realistic idea-inclusion would not work in our classes with such big numbers and without assistants”.*

*“...Due to various factors such as overcrowding, poor discipline, and attitude of learners, the workload this would be impossible”.*

Other educators have a feeling that it is impossible to include mentally challenged learners in mainstream education because educators need training and exposure to cope with learners who are mentally challenged. This is indicated in statements such as *“...This is impossible, lack of educator’s experience may hinder the inclusion of the mentally challenged learners. Experience and training are required for educators to teach a mentally challenged child”.*

The educators’ views reflected a continuum on the issue of inclusion. Some fervently support inclusion albeit conditionally, while a few totally reject it. They express their concerns that special needs are not met in schools because of limited support, inadequate training and overcrowded classes.

#### **4.6 Summary**

The results of this study were analysed and presented in this chapter. Analysed data consisted of primary school educators’ attitudes towards inclusion of mentally challenged learners in the mainstream education; and whether or not the variable: grade level taught was associated with educators’ attitudes towards inclusive education. Other variables that were found not to be significantly associated with educators’ attitudes towards inclusive education were age, gender, teaching experience, and school type and class size. In addition, the categories / or categories of mentally challenged learners that educators preferred to be included in mainstream education were also analysed and described. Categories that educators preferred to be included involved mild and moderate mentally retarded learners as well as gifted and underachieving learners. Other educators did not prefer any category of mentally challenged learners to be integrated in mainstream

classes. In both cases the reasons for their preferences of certain categories of learners to be included were given and those educators who did not have preferences also stated their reasons as well.

The next chapter presents discussion, implications of the findings, recommendations, limitations, avenue for future research and conclusion.

## **CHAPTER 5**

### **Discussion of results, implication of findings, limitations and conclusion**

#### **5.1 Introduction**

This study carried out an empirical investigation to shed light on the disposition of educators' attitude and factors that affect primary school educators' attitudes towards inclusion of mentally challenged learners towards mainstream education. The methodology that was utilized to realize the aims and objectives of the study were also discussed. In chapter four the results of the study were presented and described. The hypotheses were reiterated. This chapter discusses the data collected on primary school educators' attitude towards inclusion of mentally challenged learners in mainstream education.

#### **5.2 Discussion of findings**

The study intended to find answers to the following research questions:

- Do primary school educators have negative or positive attitudes towards the inclusion of mentally challenged learners in mainstream education?
- How do the variables such as gender, age, grade level taught, teaching experience in years, type of school and class size influence the attitude of educators towards the inclusion of mentally challenged learners in the mainstream education?
- Which category / categories of mentally challenged learners do primary school educators prefer to be integrated into the mainstream education?

The aims of the present study were as follows:

- To find out whether primary school educators held negative or positive the attitudes towards the inclusion of mentally challenged learners in mainstream education.
- To find out whether or not variables of gender, age, grade level taught, type of school, teaching experience and class size were related to the attitudes of educators' towards the inclusion of mentally challenged learners in mainstream education.
- To determine the category/categories of mentally challenged learners whom primary school educators prefer to be integrated into the mainstream.

The hypotheses of this study were:

- Primary school educators hold negative attitudes towards the inclusion of mentally challenged learners in mainstream education.
- Variables such as age, grade level taught, gender, type of school, experience and class size do not have any relationship to primary school educators' attitudes towards the inclusion of mentally challenged learners in mainstream education.

### **5.2.1 Findings with regard to the first aim**

The results indicate that most primary school educators (60%) held negative attitudes towards the inclusion of mentally challenged learners in mainstream education, against 40% who hold a positive attitude. This finding is not surprising, because inclusion is still new in South Africa and some educators might not have requisite skills to handle inclusive classes.

Various authors agree with these findings (Mushoriwa, 2000: 193; Davis, Gardner, Lee, 1999: 98; Naidoo, 2004: 74; Mashiyi 2004:54; Madikane, et al., 2007). Forlin's (2001) study also support these findings, as the results reveal that educators appear to be reluctant to teach learners with intellectual disabilities, which is an indication that effective teaching to normal learners in their class would be compromised. These results are also consistent with most studies on inclusion of learners with special needs (LSEN) in the mainstream, which indicate negative attitudes among educators. Most educators reflect a general reluctance to accommodate LSEN in their mainstream classes (Naidoo, 2004; William, 2002; Forlin, 1995; Mushoriwa, 2002).

On the contrary, a UK study by Clough and Lindsay (1991) indicated that their research provided some evidence that attitudes had shifted in favour of integrating children with LSEN over the past 10 years. They argue that this was partly the result of experiences teachers had gone through.

### **5.2.2 Findings with regard to the second aim**

The results indicated that variables such as gender, age, teaching experience school type and class size did not have any relationship with primary educators' attitudes towards the inclusion of mentally challenged learners in the mainstream education. However, the variable of grade-level taught was found to be significantly associated with educators' attitudes.

The variable of gender did not yield any significant association with educators' attitudes; however the findings revealed that 64% male educators were negatively inclined whereas, 36% female educators are negatively inclined. This implies that female educators are more positive than male educators although the difference was not statistically significant. Similar findings by Beh-Pajooch (1992) have shown that female educators expressed positive attitudes towards the idea of integrating learners with behavioural problems than male educators.



With regard to the variable of age, the findings show that educators who fell between the ages of 21-35 (52%) and 46-55 (63%) were positively inclined whilst educators falling within 36-45 years (36%) and 56+ year (33%) age group were negatively inclined. The findings support Naidoo (2004), whose study revealed that there was no significant relationship between educators' attitudes and variables such as gender and age with regard to the inclusion of learners with mild mental retardation. These findings are also in line with Avramidis and Burden (2000) who indicated that neither gender nor age had any influence on educators' attitudes towards the inclusion of children with special educational needs in regular schools.

Class size did not affect the educator's attitude. The reason might be that a number of educators who participated in this study were teaching classes with reasonable loads. For instance, about 33% of the educators taught classes with 36 learners and below, 63% taught classes with less than 50 learners and only 3% teach more than 63 learners in the classrooms. In addition, from the open-ended question, there were also few respondents who had raised the concern of huge numbers of learners in their classes. These results are somewhat different from the earlier ones (William, 2002; Bothma, et al, 2002; Mashiya, 2003) which indicated a strong relationship between educators' attitudes towards inclusive education and the variable of class size.

The alternative hypothesis was confirmed in respect of the teaching grade and educators' attitudes. The findings indicated that there was a relationship between the variables of teaching experience, type of school where educators taught and educators' attitudes. The finding supports Mashiya (2003) who stated that the variable of phase or grade taught had an influence on educators' attitudes towards inclusive education. These findings were also in line with Avramidis, et al (2000), who reported that the above mentioned variables of teaching grade, teaching experience and school type affected educators' attitudes to a great extent. On the other hand, Villa, et al (1996) when they examined the relationship between independent democratic variables such phase taught and years of teaching experience vis-à-vis educators' attitude towards inclusion found contrary findings. These investigators stated that none of the above mentioned variables (teaching grade, teaching

experience and school type) was found to be significantly related to the respondents' attitudes.

With regard to teaching experience, the result was not significant, that is, there was no relationship between the variable of teaching experience and the educators' attitudes. Respondents' teaching experience ranged from 1 to 21 years and above. The general findings indicated that the variable of teaching experience was not related to educators' attitudes. However, the results demonstrated clear differences in responses between educators who had varying degrees of teaching experience. In this study, educators with 20 years and above of teaching experience (25%) were least supportive of inclusion of learners who were cognitively challenged than those who had less than 20 years of teaching experience; followed by educators with teaching experience of 11-15 years and 1-5 years (29%) respectively. Educators with 16 -20 (60%) years of teaching experience and those with 6-10years (54%) of teaching experience were positive towards the inclusion of learners who were mentally challenged. These findings supported earlier findings by several researchers (Clough & Lindsay, 1991; Chazan, 1994; Villa et al,1996; Robert & Lindsell, 1997; Mohammed, 2006) who discovered that teaching experience had a significant influence on teachers' attitudes towards LSEN. Clough and Lindsay (1991) found that younger teachers and those with few years of experience were found to be more supportive of inclusion. Florin's study (2000) showed an opposite view, that acceptance of a learner with a physical disability was less favoured by those who had six to ten years of teaching experience. The most experienced educators, more than 11 years of teaching were the least accepting. Robert and Lindsell (1997) also found that teachers with 14 years, or less, of teaching experience had a significantly higher score in their attitude to inclusive education than those with more than 14 years. This was also demonstrated by a survey conducted by Chazan (1994), which revealed that educating students with significant disabilities in mainstream classrooms resulted in positive changes in educators' attitudes when teaching experience has accumulated.

The variable of grade level taught yielded a statistically significant result. This means that the grade level taught does affect educators' attitudes towards the inclusion of mentally

challenged learners in mainstream education. The current findings showed that as grades levels rose higher, educators' attitudes became more negative towards inclusive education. It was, therefore, suggested that the grade or phase in which educators taught needed to be considered by empowering teachers on how to handle learners with cognitive problems. For example, cognitive-behaviour modification programme may be suggested. It was evident that 51% of the educators who taught in the Foundation Phase were positively inclined whereas 72% of educators who taught in the Senior Phase were negatively inclined towards mainstreaming, followed by 61% educators in the Intermediate Phase who were positively inclined. This study also revealed that 50 subjects who taught in the Foundation Phase were only females in all the participating school schools. Male educators taught only in the Intermediate and Senior Phases. This might be the reason why educators who taught at Foundation Phase were more positive than those who taught in the Intermediate and Senior Phases i.e. female educators are warm, soft hearted in nature, and they are able to handle learners with different cognitive challenges in foundation phase. Another reason might be that maternal responsibilities were assigned to female parents, and that taking care of children is usually their responsibilities.

Further, the results of this study revealed that the type of school has no significant effect on educator's attitudes. Educators from the Full Service School, Remedial Centre, Special School / Resources Centre differed with regard to attitudes towards the inclusion of the mentally challenged learners into the Mainstream class. The findings also showed that educators from the Remedial School were more negatively inclined (87%), followed by those who came from the Resources Centre (67%). Respondents from the Full Service School were negatively inclined by 52%. The educators from the Mainstream class were the only ones who were positively inclined (63%). These findings imply that most of mainstream school educators were positive towards the inclusion of the mentally challenged learners in mainstream education. This might be because mainstream educators are not yet exposed to the challenges of handling mentally challenged learners. The findings are in line with Bothma, et al (2004), who reported that educators felt that

LSEN would be best served in separate educational facilities which were combined, remedial or in special schools or special classes. The educators involved in the study stated that they were not well trained to cope with LSEN.

### **5.2.3 Findings with regard to the third aim**

With regard to the open-ended question of “which category / categories of mentally challenged learners the educators preferred to be included in mainstream education”, the findings revealed that most educators had various preferences in this regard. It was quite evident that educators were not confident to teach certain categories because they were not well equipped and felt that they lacked experience as well as not having sufficient resources in their schools and being overloaded.

Overall, the findings indicated that 30% of the educators preferred the inclusion of underachieving and gifted learners. Educators who preferred these two categories had a strong feeling that they would not be able to teach other categories because of high educator-learner ratios in their schools.

Mild and moderately mentally retarded learners were categorized as the second and the last preference respectively. Educators who have chosen these categories indicated that these children were manageable in mainstream schools than the profound and severely mentally retarded ones. The findings also revealed that about 60% of respondents preferred the inclusion of mild and moderately mentally challenged learners in mainstream education.

This study also revealed that 10% of the participants did not prefer to teach any of these categories in mainstream schools at all, since they were not ready for such inclusion, due to the fact that they lacked training, experience and did not have sufficient resources to handle mentally challenged learners. They further indicated that overcrowding was another barrier. These results concur with the findings of various authors (Skuy, et al, 2001; Macleod, 1999; Mushoriwa, 2000; Blamires, 1999). These authors also reported

that educators had some preferences with regard to the inclusion of learners with special educational needs. Their findings indicated that educators preferred learners with mild disabilities than with severe disabilities to be integrated in normal classes. In particular, Mushoriwa, (2000) mentioned that educators preferred learners who were blind, deaf and physically disabled than children with emotional and behavioural problems.

A study (Mdikana, et al, 2007) on pre-service educators' attitude towards inclusive education also supports these findings. In their study Mdikana et al (2007) showed that educators had a general hierarchy of conditions that were regarded as possible for inclusion. These researchers (Mdikana, et al, 2007) highlighted that severely intellectually challenged learners were all considered least favourably, while medically and physically challenged learners were seen as most easy to manage. About 90 % of the participating teachers felt that sensory impairments could be taught in mainstream classes', only 10% supported the view of integrating learners with severe intellectual challenges and with multiple challenges in mainstream classrooms.

### **5.3 Educational Implications of findings**

This study revealed the following implications:

- Generally, the findings of this study indicated that educators' attitudes were extremely negative when dealing with learners with diverse needs. The implication of these findings is that educators' attitudes should be taken into consideration and monitored; this will result in the successful implementation of inclusive education in South Africa. This also implies that if educators would be made aware of the different categories of mentally challenged learners, they would be motivated to accept mentally challenged ones, and learn how to handle such learners in class. It is envisaged that through workshops, attitudes of educators can be turned positive.

- The general findings have also shown that no relationship exists between school type and educators' attitudes. However, the findings reflected that educators from the mainstream school, remedial school, special school and full service school would display different attitudes towards different challenges. For example, the educators from special school, full service and remedial schools did not feel comfortable to handle any mentally challenged learners because of the lack of exposure, as compared to mainstream educators who are exposed to handling those learners. Failure to consider these findings will "retard or hinder" the positive attitudes that educators display. The Department of Education must take this aspect to account with regard to any assistance given to primary school educators.
- The teaching experience of educators somehow has a bearing on primary school educators' attitude as the present study reflected. This implies that educators need to be workshopped to remove mixed feelings.
- The results further indicated that the phase level for which educators taught played a vital role in determining educators' attitudes. This implies that educators teaching different phases might display different attitudes. So the issue of phase must not be overlooked.
- The findings revealed that some educators felt relaxed if they taught Foundation or Intermediate Phase whereas others preferred Senior Phase learners. The implication is that grade plays a very important role in educators' attitudes towards inclusive education. This also implies that preferences of grade should be considered when deploying educators.

#### **5.4 Limitations of the study**

This study had some limitations which were inherent in the research design and methodology.

- There is a limitation emanating from the sample. The study investigated primary school educators' attitudes towards inclusion of mentally challenged learners only in two districts (Empangeni and Obonjeni) due to financial constraints and time.

If all districts from this province (KZN) had been involved, this study might have reflected different results which might be of great value.

- There was a limit in using the questionnaire as a tool to collect data. The questions might have been biased or loaded in one direction.
- Another limitation related to the questionnaire was that there might have been questions that were understood differently by different respondents. For example, respondents might have understood the term mentally challenged differently.

Besides these limitations, the study nonetheless, generated useful information which has contributed to a clearer understanding of attitude profile of educators towards inclusive education in primary schools.

## **5.5 Avenues for future research**

The study has succeeded in achieving its objectives and has opened the following areas for future research:

- A comparative study that will investigate primary school educators' attitudes in urban and rural areas towards the inclusion of the mentally challenged learners in mainstream education. This also needs to be conducted in order to establish which area favours integration.
- There is a need to conduct a study of this nature in all regions of KZN.
- There is a need to study learners' and parents' attitudes towards the inclusion of mentally challenged learners in mainstream education.
- Studies investigating educators' knowledge to handle mentally challenged learners' needs to be undertaken in future.

## **5.6 Conclusion**

The attitudes of educators play a critical role in the successful implementation of inclusive education. This is because they are important agents who work directly with

learners in their daily classroom routines. Although not overwhelmingly demonstrated, there is presumptive evidence that the work environment has an impact on the attitudes of the primary school educators. There is an urgent need for improvement of certain service conditions in the school setting to change the attitudes of educators. Lack of experience, lack of in-service training and lack of inspiration emerged as other factors retarding the implementation of inclusive education.



## 6. REFERENCES

- Ainscow, M. (1994). *Special needs in the classroom: A teacher education guide*. Kingsley / UNESCO.
- Alghazo, E.M., Hamzah, D & Ibrahim, A.A. (2003). Attitude of Pre-service teachers' towards persons with disabilities: predictions for the success of inclusion. *Journal of Special Education*. 37 (7): 22-35.
- Alkhatani, A. (2003). *Teachers' attitudes towards integration in Soudi Arabia*. Unpublished MA dissertation. University of Jordan, Amann.
- Alkhateeb, J. (2002). Teachers' perception of the inclusive school concept in Jordan. *Educational Journal*, 4 (65): 19-35.
- Avramidis, E., Bayliss, P. & Burden, R. (2004). Student teachers' attitudes towards the inclusion of students with special educational needs in the ordinal school. *Teaching and Teacher Education*, 13 (4):277-293).
- Avramidis, E. & Burden, R. (2004). A survey into mainstream teachers' attitudes toward the inclusion of students with special educational needs in the ordinal school in one local Educational authority. *Journal of Educational Psychology*, 20 (2): 191-215).

- Avramidis, E. & Norwich, B. (2000). Teachers attitudes towards integration / inclusion: a review of the literature. *European Journal of Special Needs Education*, 17 (2): 121-147.
- Baines (1997). Mainstreaming: One Schools' Reality. *Phil Delta Kappan*, 78 (7), 139-160).
- Ball, A.F. (2000). Preparing teachers for diversity: lessons learned from the United State and South Africa. *Teacher and teacher Education*, 16 (3): 491-509.
- Barton, M.L. (1992). Teachers' opinions on the implementation and effect of mainstreaming, (ERIC) *Document Reproduction Service*.
- Beckwith, J.B. & Mathews, J.M. (1995). Measurement of attitudes of trainee professionals to people with disabilities. *Journal of Intellectual Disability Research*, 39 (4): 255-262.
- Beh-Pajook (1992). *The effect of social contact on college teachers' attitudes towards students with severe mental handicaps and their educational integration*. *European Journal of Special Needs Education*, 22 (6): 231-236.
- Berryman, J.D. (1989). Attitudes of the public towards educational mainstreaming, *Remedial and Special Education*, 7 (1): 231-236.

Blamires, M. (1999). Universal design for learning: re-establishing differentiation as part of the inclusion agenda. *Support for Learning*, 14 (4): 158-163.

Bochner, S. & Pieterse, M. (1989). Pre-school directors' attitudes towards the integration of children with disabilities into the regular preschools in New South Weles, *International Journal of Disability, Development and Education*, 36 (2): 133-150.

Bothma, M., Gravett, S. & Swart, E. (2004). Attitude of primary school educators towards inclusive education. *South African Journal of Education*, 20 (3): 200-204.

Butty, J.L. (2001). Teacher instruction, student attitudes towards and inclusive education. *Journal of Negro*, 70 (1): 1-2.

Burns, (2001). *Introduction to research methods*. Lodon : Sage.

Carrington, S. (2000). *Accommodating the needs of diverse learners: the impact of teachers beliefs on classroom practice*. Unpublished doctoral thesis. Brisbane: University of Queensland.

Carrington, S. & Brownlee, J. (2001). Preparing teachers to support inclusion: the

benefits of interaction between a group of pre-service teachers and a group of teaching assistant who is disabled. *Teaching Education*, 12 (3): 347-357.

Center, Y. & Ward (1997). Teachers attitudes towards the integration of disabled children into regular schools, *The Exceptional Child*, 34 (2) : 41-56.

Chazan, M. (1994). The attitudes of mainstream teachers toward pupils with emotional and behavioral difficulties. *European Journal of Special Needs Education*, 9 (3): 261-271.

Childs, R.E. (1981). Perceptions of mainstream by regular classroom teachers who teach mainstreamed educable mentally retarded students in the public schools. *Education and Training of Mentally Retarded Learners*, 16 (3): 225-227.

Choles, G.M. *Attitudes of South African teachers' educators in relation to mainstream pupils with special educational needs*. Unpublished masters' dissertation: University of Witwatersrand

Clough, P. & Lindsay, G. (1991). *Integration and Support Service* (London, NFER).

Coates, R.D. (1989). The regular educational initiative and opinions of regular classroom teachers, *Journal of Learning Disabilities*, 22 (1): 532-536.

Cohen, L., Manion, L. & Morris, K. (2007). *Research methods in education*. 6 ed.

London: Routledge.

Cook, B. G. (2001). A comparison of teachers' attitudes toward their included students with disabilities. *Journal of Special Education*, 34 (2): 203-204.

Culliver, C. (1991). Enhancing teacher acceptance of mainstreamed mildly handicapped students through compute –assisted instructions. *Journal of Clearing House*, 64 (3): 175- 181.

Davis J.D., Gardner P. & Lee, J. (1999). *Special Education Needs Coordinators and the Code: longer practicing*, 14 (1): 37-40

Department of National Education (1997). *Quality education for all: Overcoming barriers to Learning and Development. Report of the National Commission on Special Needs in Education and Training (NECSNET) and the National Committee on Educational Support Services*. Pretoria: Government Printers.

Department of National Education (1997). *Report of the National Commission on Special Needs in Education and Training (NECSNET, 1997) and the National Committee on Educational Support Services*. Pretoria: Government Printers

Department of Education (1996) South African School Act No 84 of 1996. Pretoria: Government Printers.

Department of Education (1996). *White paper 6: Special Education, Building an inclusive education and training system*. Pretoria: Department of Education.

Department of National Education (2001). *White paper 6: Special Education, Building an inclusive education and training system*. Pretoria: Government Printers.

Donaldson, J. (1980). Changing attitudes towards handicapped person: A review and analysis of research. *Exceptional Children*, 46 (7): 504-515.

Dover, W.E. (2002). Instructional management of Para-educators in inclusive classroom: perspective of teachers. Annual Conference Proceedings of American council on Rural Special Education. 22 nd Runo, NV, March, 7-9, 2002. U.S. South Caroline.

Du Toit, T. (2002). *Education for all*. Pretoria: Van Schaik Publishers:

Elloker, S. (1999). *Inclusive education as a strategy to develop inclusive school: a case study of primary school in a socio-economic disadvantaged environment*.

Unpublished master's thesis: University of Eastern Cape.

Emad, M.A , Hamzah, D. & Ibrahim, A.A. (2003). Attitudes of pre-service school

teachers towards persons with disabilities. *College Student Journal*, Vol (37) 25-29.

Engelbrecht, P., Green, L., Naicker, S. & Engelbrecht, L. (2001). *Inclusive education in action in South Africa*. Van Schaik Publishers: Western Cape.

Farrell, P & Milter, H. (1998). *Conceptual policy and practice in the assessment of pupils with Special Needs*. Manchester: Rathborne C.I.

Feldman, D. & Altman, R. (1985). Conceptual systems and teacher attitudes toward regular classroom placement of mildly mentally retarded students. *American Journal of Mental deficiency*, 89 (4) :345-351.

Florian, L. (1998). *Inclusive practice: Theories and discourses in inclusive education, Promoting Inclusive Practice*: London : Routledge.

Florian, L. (2003). An examination of the practical problems associated with the implementation of inclusive education policies, *Support for Learning*, 13 (3):105-108.

Forlin, C., Tait, K., Carrol, A. & Joblin, A. (1999). Teacher education for diversity. *Queensland Journal of Educational Research*, 15 (2) 207- 225.

Forlin, C. (2004). *Educators' beliefs about the inclusive practice in Western Australia*. *British journal of Special Education*, Vo (22): 179-185).

- Gething, L. (1994). The interaction with disabled persons scale. *Journal of Social Behavior and Personality*, 9 (5): 23-42.
- Giangreggo, M.F, Baumgart, D.M.J. & Doyle, M.B. (1995). How Inclusive can Facilitate Teaching and Learning. *Journal of Intervention in School Clinic*, 30 (5): 273-278.
- Giangreggo, M., Cloninger, C., Dennis, R., & Edelman, S. (1994). *Problem –Solving Methods to Facilitate Inclusion*. In J. 239-263.
- Green, L.; Naiker, S.S. & Naude, L. (1995). Specialized Education and Generalized Education: A Team Approach to Promote Learning. *South African Journal of Education* 15 (1): 1-5.
- Green, L. 1991. Mainstreaming: the challenge for teachers in South Africa. *Support for learning*, 6 (12): 84-89.
- Gudium, D.M. (2002). *A qualitative study of perception of pre-service school of school teachers: implementation of oral and written retelling strategies in teaching, reading to students with learning disabilities*. Paper presented at annual meeting of the Eastern Educational Research Association. Sarasota, FL. February 27 March, 2002.



Haider SI. Pakistani teachers' attitudes towards inclusion of students with special educational needs. *Pak J Med Sci* 2008;24(4):632-6.

Hannah, M.E. (1988). *Teacher attitude towards children with disabilities: an ecological analysis. Attitudes toward people with disabilities*. New York: Springer.

Harvey, DHP (1992). Integration in Victoria: Teachers' attitudes after six years of a No-Choice Policy. *International Journal of Disability, Development and Education*, 39 (1): 33-35

Hay, J.F., Smit, J. & Pavlsen, M. (2001). Teacher Preparedness for Inclusive Education. *South African Journal of Education*. 21(4): 213-218.

Heiman, T.(2001). Inclusive Schooling – Middle School Teachers' Perceptions. *School Psychology International*, 22 (8): 451-457.

Hellier, C. (1988). Integration – a need for positive experience, *Educational Psychology in Practice*, 4 (1) :75-79.

Horne, M.D. & Ricciardo, J.L. (1988). Hierarchy of responds to handicaps, *Psychological Reports*, 4 (2): 83-86).

Imich, A.J. (1994). Exclusion From School: current trends and issues. *Educational Research*. 36 (1): 3-9.

Ivey, J.K & Julie, K. (2002). Pre-Service teachers' attitudes towards inclusive education in traditional classes. *Electronic Journal of Inclusive Education*, Vol 1 (3): 55-70.

Jamieson, J.D. (1984). Attitude change in Special Education: Theory and practice. Reston, V.A. *The Council for Exceptional Children*.

Kampfer, S. H., Horvath, L.S., Kleinert, H.L & Kearns, J.F (2001). Teachers' perceptions of one State's Alternate Assessment: implication for practice and preparation. *Exceptional Children*, 67 (3): 361-374).

Keith. C.H. (1998) *Differences in teachers' attitude towards inclusive education as measured by the scale of teachers' attitudes towards inclusive education*. Paper presented at of the annual meeting of Mild-Western Educational Research association (Chicago, IL October1998).

Kerlinger, F.N. (1973). *Foundations of Behavioral Research*. New York: Holt – Saunders Ltd.

Kisanji, J. (1999). *Historical and theoretical basis of inclusive education*. The challenge for teacher education workshop, Namibia, 24-24 March.

Kubyana, K.D. (2008). Attitude of Special School teachers towards inclusion. Limpopo: University of Johannesburg.

Landberg, E. Kruger, D. & Nel, N (2005). *Addressing barriers to learning: a South African perspective*. Pretoria: Van Schaik publishers.

Larrivee, B & Cook, L. 1979. Mainstreaming. A study of variables affecting teachers' attitudes. *The Journal of Special Education*, 13 (3): 315-324.

LeRoy, B. & Simpson, C. (1996). Improving students' outcomes through inclusive education. *Support for Learning*, 11: 32-36.

Lewis, R.B. & Doorlag, D.H (1995). *Teaching students in the mainstream*. . 4<sup>th</sup> Ed. New Jersey: Prentice Hall.

Madikane, A., Nthangase, S & Mayekiso, T. (2007). Pre-Service Educators' attitudes towards inclusive education. *International Journal of Special Education*. Vol 22 (1) 125-131.

Majova, C.N. (2001). *The attitude of secondary school learners towards sexual education*. Kwa-Dlangezwa: Unpublished dissertation.

- Marchesi, A. (1998). International perspective on Special education reform. *European Journal of Special Needs Education*. Vol (13). 116-122.
- Marshall, J. Ralph, S. & Palmer, S. (2002). Mainstream teachers' attitudes to children with speech and language difficulty. *International Journal of Inclusive Education*,
- Mashiya, N. (2002). *Educators' attitudes towards inclusive education*. Kwa-Dlangezwa :University of Zululand, unpublished dissertation.
- McMillan, T, J.H. & Schumacher, S. (1993). *Research in education: a conceptual introduction*. New York: Harper Collins Publishers.
- Mahammed, A (2006). Teachers' attitudes towards Jodanian schools. *International Journal of Special Education*. Vol (2) 55-61.
- Merriam, SB. (1998). *Qualification research and case study applications in education* San Francisco: Josse Bass Publishers.
- Mukherjee, S., LightFoot, J. & Sloper, P. (2000). The inclusive of pupils with a chronic health condition in mainstream school: what does it mean for teachers: **educational Research**. vol. 42 (1) 59-72.
- Mushoriwa, T. (2001). A study of attitudes of primary school teachers in Harare toward the inclusion of blind children in regular classes. *British Journal of Special Education*,

28 (3): 142-147.

Naicker, S. (1999). Inclusive education in South Africa. In *Inclusive education in action in South Africa*. Edited by Engelbrecht, P., Green, L., Naicker, S. & Engelbrecht, L. Pretoria: Van Schaik Publishers.

Naicker, S.M. (2002). Transforming education in South Africa: from apartheid to inclusive education. Paper presented at Wayne University in 2002.

Naidoo, J. (2004). *Kwa-Zulu Natal educators' attitudes towards the inclusion of the mild mentally retardation learners*. Kwa-Dlangezwa :University of Zululand, unpublished dissertation.

Neuman, W.L. (200). *Social Research Methods: Qualitative and Quantitative Approaches*. Boston : Allyn and Bacon.

Nkabinde, Z.P. & Ngwenya, T.P. (1996). Interviews with African Parents of Children with Disabilities in South Africa. *Paidonomia*, 19 (1): 34-41.

Osward, M., Engelbrecht, P., Steyn, E. & Ellof, I. (2001). High school educators' democratic values and their attitudes towards inclusive education: *Stressors for Teachers*. conference, Stellenbosch, 3-5 October, 2001.

Payne, R. (2005) Special Education teacher shortages: barrier or lack of preparation.

*International Journal of Special Education*, Vol 20 (1): 88-91.

Pijl, S.J., Meijer, C. W.J. & Hergarty, S. (1997). *Inclusive Education: A global Agenda*.  
London: Routledge.

Robert, C. & Lindsell, J. (1997). Children attitudes and behavioural intentions towards  
peers with disabilities. *International Journal of Disability, Developmental and  
Education*, Vol (44): 133-145.

Rose, R. (2001). Primary School Teacher Perceptions of the Conditions  
Required to Include Pupils with Special Educational Needs. *Educational Review*.  
53 (2): 147-156.

Sabathini, J.P. Designing learning media system for learners. National Center on Adult  
literacy: University of Pennsylvanian.

Sadek, F.M. & Sadek, R.C. (2000). Attitudes towards inclusive education in Egypt and  
implications for teachers' preparation and training. *International Special Education  
Congress 2000*. Including the excluded, University of Manchester.

Sarisbury, C.L. & Smith, M.M. (1993). On the nature of change of an inclusive  
elementary school. *Journal of Association for Persons with Severe Handicaps*, 18 (4):  
75-84.

Scruggs, T. & Mastropeiri, (1996). Teacher perceptions of mainstreaming / inclusion, 1958-1995. A research synthesis: *Exceptional Children*, Vol (63): 59-74.

Semmel, M.I., Abernathy, T.V., Butera, G. & Lesar, S. (1991). Teacher perceptions of the regular education initiative, *Exceptional Children*, 58 (3): 9-58.

Shechtman, Z. & Orr, V. (1996). Applying counseling methods to challenge educators with regard to classroom diversity and mainstreaming: an empirical study. *Teaching and Educator Education*, 12 (2): 137-147.

South Africa (Republic). Department of education (1995). *White paper on Education and Training in a democratic South Africa. First Steps to develop a New System*. Pretoria: Government Printer.

Skuy, M., Young, S., Ajam, A. & Fridjhon, P. (2001). Instrumental enrichment as a vehicle for teachers in implementing Outcomes Based Education in South Africa. *International Journal of Special Education*, 16 (2): 16-31.

Slavin, R.E. (1989). Team assisted individualization: co-operative learning and individualized instruction in the mainstreamed classes. *Remedial and Special Education*, 5 (6): 33-42.

- Smith, M.K. & Smith, K.E. (2000) 'I Believe in Inclusion, But...': regular education early childhood teachers' perceptions of successful inclusion, *Journal of Research in Childhood Education*, 14, pp. 161-180.
- Steven, M.E. (2005). Effect of teachers' attitudes towards inclusive on practice and success levels of children with and without disabilities. *The Preliminary Program for 2005 National Convention and Exposition*. Georgia Southern University: Statesboro, GA.
- Steyn, J. (1999). Education for democracy. *South African Journal of Education*, 6 (4): 250-255.
- Sibaya, P.T. , Sibaya, D.C. & Mashisa, R.X (1996). Black Secondary School pupils problems with Mathematics: *South African Journal of education* 16 (1) 32-37.
- Stofer, R.D. (1992). Perceptions of regular education teachers towards inclusion of all handicapped students in their classrooms. *The clearing House*, 66(1), 60-62.
- Thomas, D. (1995) an inclusive school for an inclusive society, *British Journal of Special Education*, 24 (2): 103-107.
- UNESCO (1994). *The Salamanca Statement and Framework for action on special needs education*. World conference on Special Needs Education: Access and Quality, Samanca, Spain, 7-10 June 1994. Paris: UNESCO.



UNESCO (1998). *Inclusive education on the agenda*. Paris: UNESCO.

Vaughn, S. Elbaum, B.E. & Schumm, J.S. (1996). The effects of inclusion on the social functioning of students with learning disability. *Journal of learning Disabilities*, 29 (6): 598-608.

Villa, R.A., Thousand, J.S., Meyers, H. & Nevin, A. (1996). Teacher and administrator's perceptions of heterogeneous education, *Exceptional Children*, 63 (6): 96-106.

Ward, J., Center, Y., & Bochner, S. (1994). A question of attitudes: integrating children with disabilities into regular classroom. *British Journal of Special Education*, 21(1): 24-39.

Welman, J.C. & Kruger, S.J. (2002). **Research Methodology** (2<sup>nd</sup> Ed.). Cape Town: Oxford University Press.

Westwood, P.S. & Graham, L. (2000). How many children with special needs in regular classes. *Australian Journal of Learning Disabilities*, 5 (3): 25-39.

Williams, S. (2002). *The Attitude of Educators in Mainstream School Towards Inclusion of Learners with special Needs*. Unpublished M.Ed Dissertation. University of Zululand : KwaDlangezwa.

White Paper 6

Winter, S. & Ellis, K. (1995). *Teacher expectations*. In J. Biggs & D. Walkins (Eds) ,

Classroom.

## ANNEXURE A: EDUCATORS' QUESTIONNAIRE

### THE ATTITUDE OF PRIMARY SCHOOL EDUCATORS TOWARDS THE INCLUSION OF MENTALLY CHALLENGED LEARNERS IN THE MAINSTREAM EDUCATION

#### QUESTIONNAIRE FOR EDUCATORS

The questionnaire consists of 3 Sections.

#### SECTION A: BIOGRAPHICAL DATA

This is a study of the primary school educators' attitudes towards the inclusion of mentally challenged learners.

NB: The term **mentally challenged learners** refers to the learners who are **mentally retarded, gifted underachieving and gifted**.

You are requested to fill in your personal information by making a tick (✓) in the appropriate space provided with information applicable to you.

#### 1. GENDER

1	Male	
2	Female	

#### 2. AGE IN YEARS

1	21-35	
2	36-45	
3	46-55	
4	56 and Above	

**3. GRADE LEVEL TAUGHT**

1	Grade R-1	
2	Grade 2-4	
3	Grade5-7	

**4. NUMBER OF YEARS IN TEACHING EXPERIENCE**

1	1-5 years	
2	6-10 years	
3	11-15 years	
4	16-20 years	
5	21 and above	

**5. TYPE OF SCHOOL**

1	Full service school	
2	Special School / Resources Centre	
3	Mainstream school	
4	Remedial School	

**6. CLASS SIZE TAUGHT**

1	32 and below	
2	33-42	
3	43-52	
4	53-62	
5	63 and above	

**SECTION B: CLOSE-ENDED ITEMS**

In this section there are different statements about attitude of primary school educators towards the inclusion of mentally challenged learners in the mainstream education.

Circle the response, which most closely represents your idea towards each statement.

Answer all statements.

**KEYS:**

SA = Strongly Agree.

A = Agree.

US = Unsure.

D = Disagree.

SD = Strongly Disagree.

STATEMENT	SA	A	US	D	SD
1. It is not feasible to teach a gifted and average child in the same classroom	SA	A	US	D	SD
2. Inclusion can play a very important role in the social development of mentally challenged learners	SA	A	US	D	SD
3. Every one can learn in a regular classroom including a mentally retarded learner.	SA	A	US	D	SD
4. Inclusion can play a very important role in the intellectual development of mentally challenged learners	SA	A	US	D	SD
5. Inclusion can play a very important role in emotional development of mentally challenged learners	SA	A	US	D	SD
6. I don't feel comfortable to teach learners with severe mental retardation.	SA	A	US	D	SD
7. Educators in the regular classrooms should be encouraged to accept learners who are mentally challenged.	SA	A	US	D	SD
8. Direct involvement with learners who are mild mentally retarded can improve educators' attitude	SA	A	US	D	SD
9. Lack of educators' experience may hinder the inclusion of	SA	A	US	D	SD

the mentally challenged learner in mainstream education					
10. I believe that inclusion will allow the mentally retarded learners to build the relationships and make friends	SA	A	US	D	SD
11. I feel that female educators will handle learners who are gifted better than male educators.	SA	A	US	D	SD
12. It is not easy to teach learners with profound mental retardation.	SA	A	US	D	SD
13. Experience is required for educators to teach a mentally challenged child	SA	A	US	D	SD
14. Anxiety or fears of failure are possible difficulties encountered by learners in the class with mentally challenged and normal learners.	SA	A	US	D	SD
15. I am concerned with the inclusion of a mentally challenged child. The regular classroom teacher is already overworked.	SA	A	US	D	SD
16. I believe that inclusion of mentally challenged learners can work if we have a great deal of attitude change and training for everyone involved.	SA	A	US	D	SD
17. Children with profound mental retardation do not learn as much in the regular classrooms.	SA	A	US	D	SD
18. I prefer educators who have already gained knowledge and experience with learners who are mentally challenged	SA	A	US	D	SD
19. I don't like regular classes to be integrated / mixed with classes of learners who are moderate mentally retarded.	SA	A	US	D	SD
20. Learners who are severe mentally challenged may suffer social rejection from peers.	SA	A	US	D	SD
21. I don't think integrating mild mentally retarded learners in earlier grades would make any difference.	SA	A	US	D	SD
22. It seems to me that overcrowding in our schools will hinder the inclusion of a mentally challenged learner in regular	SA	A	US	D	SD

classes.					
23. The mentally challenged learner should receive a special attention in a normal classroom.	SA	A	US	D	SD
24. I feel comfortable to teach mild mentally challenged learners in mainstream.	SA	A	US	D	SD
25. Direct involvement with gifted learners can improve teachers' attitudes.	SA	A	US	D	SD
26. Man and women differ in their attitudes towards learners who are mentally challenged.	SA	A	US	D	SD
27. Lack of teachers' experience may hinder the learning of mixed variety of mentally challenged learners in classes.	SA	A	US	D	SD
28. I feel comfortable to teach learners with profound mentally retarded learner.	SA	A	US	D	SD
29. I think that "inclusion" of mentally challenged learner may take so much time from the regular educator	SA	A	US	D	SD
30. The average learners rights will be infringed if they are mixed with mentally challenged learners in the same class	SA	A	US	D	SD
31. Placing moderate mentally challenged learners in mainstream classroom places too much pressure on them.	SA	A	US	D	SD
32. Having a mentally retarded child in the regular classes reduces the standard of education	SA	A	US	D	SD
33. Including a mentally challenged learner in a regular class has got lot of challenges, like rejection by peers and etc.	SA	A	US	D	SD

### SECTION C: OPEN-ENDED ITEM

According to the categories of mentally challenged learners, which ones do you think can be integrated with learners in the mainstream? Why?

---

---

---

---

---

---

---

---



## ANNEXURE B: EDUCATORS' CONSENT FORM

I \_\_\_\_\_ agree to participate in the research project investigating the primary school educators' attitudes toward the inclusion of mentally challenged learners in the mainstream education. I understand the aims and the study objectives, the risks involved, benefits, and inconveniences that this research projects entails.

- I understand that I am not obliged to participate in this study, that I am free to not to answer certain questions, and that I have a right to withdraw from the study at anytime.
- I understand how confidentiality will be maintained during this research project
- I also understand that the interviews will be audio-taped and that because of the nature of project I herewith waive my right to confidentiality and anonymity.
- I understand the anticipated uses of data, especially with respect to publication, communication and dissemination of results.

I have carefully studied the above and understand my participation in this agreement; I freely consent and voluntarily agree to participate in this study.

My basic concern is to examine the primary school educators' attitudes toward the inclusion of mentally challenged learners in the mainstream education in Empangeni and Obonjeni districts of Zululand region. This research will add to the existing body of knowledge on inclusion.

Date \_\_\_\_\_ Signature \_\_\_\_\_

**ANNEXURE C: REQUEST FOR PERMISSION TO CONDUCT THE STUDY**

University of Zululand  
P/Bag x1001 (Internal Box 315)  
Kwa-Dlangezwa  
3886

The District Director

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Dear Sir/Madan

**REQUEST FOR PERMISSION TO DO RESEARCH**

I am currently engage in a research project investigating the inclusion of mentally challenged learners in mainstream education as one of the requirements in the fulfilment of Med (Educational Psychology) programme in the Department of Educational Psychology and Special Education.

My basic concern is to examine the primary school educators' attitudes toward the inclusion of mentally challenged learners in the mainstream education. This research will add to the existing body of knowledge on inclusion.

I would be grateful if this request will be considered and your assistance in this regard will be highly appreciated.

Thanking you in advance.

Yours Sincerely

\_\_\_\_\_  
**SP ZULU**

**UNIVERSITY OF ZULULAND**

**SUPPERVISED BY**

**DR JD Adams MA , MA COUNSELLING PYSCHOLOGY, DEd (UNIZUL) Senior Lecturer:  
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION**

**ANNEXURE D: PERMISSION TO CONDUCT THE STUDY**



PROVINCE OF KWAZULU-NATAL  
ISIFUNDAZWE SAKWAZULU-NATALI  
PROVINSIE KWAZULU-NATAL

DEPARTMENT OF EDUCATION  
UMNYANGO WEFUNDO  
DEPARTEMENT VAN ONDERWYS

Telephone : 035 901 1300  
Fax : 035 792 6165

Private Bag X 20104  
Empangeni  
3880

Cnr. Maxwell Street & Hancock Avenue  
EMPANGENI  
3880

ISIFUNDA SASEMPANGENI

EMPANGENI DISTRICT

EMPANGENI STREEK

Enquiries: MRS GMP SIDAKI  
Imibuzo  
Navrae:

Reference: SP ZULU  
Inkomba:  
Verwysing:

Date: 19.11.2008  
Usuku:  
Datum


Dr JD Adams  
University of Zululand  
Private Bag X 1001  
KwaDlangezwa  
3886

Dear Dr Adams

**PERMISSION TO CONDUCT RESEARCH: MS SP ZULU**

This serves to confirm that Ms SP Zulu was granted permission by the Department of Education to conduct research in the primary schools within Empangeni District in May 2008.

Attached please find a copy of the letter written to Ms Zulu.

  
\_\_\_\_\_  
MRS G.M.P.SIDAKI  
DISTRICT MANAGER

**ANNEXURE E: REQUEST FOR ACCESS TO SCHOOLS**

University of Zululand  
P/Bag x1001 (Internal Box 315)  
Kwa-Dlangezwa  
3886

The Principal

---

---

---

Dear Sir/Madan

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

I am currently engage in a research project investigating the inclusion of mentally challenged learners in mainstream education as one of the requirements in the fulfilment of Med (Educational Psychology) programme in the Department of Educational Psychology and Special Education.

My basic concern is to examine the primary School educators' attitude towards the inclusion of mentally challenged learners in the mainstream education. This research will add to the existing body of knowledge on inclusion.

I would be grateful if this request will be considered and your assistance in this regard will be highly appreciated.

Thanking you in advance.

Yours Sincerely

---

**SP ZULU**

**UNIVERSITY OF ZULULAND**

**SUPPERVISED BY**

**DR JD Adams MA , MA COUNSELLING PYSCHOLOGY, DEd (UNIZUL)**

**Senior Lecturer: DEPT-EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION**

## ANNEXURE F: PROFILES OF THE RESPONDENTS

Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
1	F	36-45	5-7	11-15 yrs	Full service school	43-56	Emp- Township School	112	N
2	F	21-35	R-1	6-10yrs	Mainstream school	32& below	Obonjeni School	100	N
3	M	21-35	5-7	1-5yrs	Mainstream School	33-42	Obonjeni School	107	P
4	F	21-35	5-7	1-5yrs	Special School	33-42	Emp- Township School	120	P
5	F	46-55	5-7	16-20yrs	Mainstream School	43-52	Obonjeni School	129	P
6	M	36-45	5-7	1-5yrs	Mainstream School	33-42	Emp- Township School	117	P
7	F	21-35	5-7	6-10yrs	Mainstream School	33-42	Obonjeni School	131	P
8	F	21-35	R-1	6-10yrs	Mainstream School	53-62	Obonjeni School	101	N
9	F	46-55	R-1	6-10yrs	Full service school	33-42	Emp- Township School	101	N
10	F	21-35	R-1	6-10yrs	Full service school	33-42	Emp- Township School	112	P
11	F	56 & above	R-1	6-10yrs	Full service school	33-42	Emp- Township School	83	N
12	F	21-35	R-1	1-5yrs	Mainstream school	53-62	Obonjeni School	85	N
13	F	21-35	R-1	1-5yrs	Mainstream school	32& below	Obonjeni School	98	N
14	F	36-45	R-1	6-10yrs	Mainstream school	63 & above	Obonjeni School	87	N
15	F	46-55	R-1	1-5yrs	Mainstream school	53-62	Obonjeni School	82	N
16	F	21-35	R-1	1-5yrs	Mainstream school	32& below	Obonjeni School	109	P
17	F	21-35	R-1	6-10yrs	Mainstream school	33-42	Obonjeni School	106	P
18	F	41-55	R-1	6-10yrs	Full service school	53-62	Emp- Township School	102	N
19	F	21-35	R-1	1-5yrs	Full service school	33-42	Emp- Township School	103	N
20	F	21-35	R-1	1-5yrs	Full service school	32& below	Emp- Township School	106	P
21	M	36-45	5-7	11-15yrs	Mainstream school	53-62	Obonjeni School	104	P
22	F	21-35	2-4	6-10yrs	Mainstream school	43-52	Obonjeni School	105	P
23	F	36-45	R-1	6-10yrs	Full service school	33-42	Emp- Township School	96	N
24	F	46-55	R-1	11-15yrs	Mainstream school	33-42	Obonjeni School	110	P
25	F	21-35	R-1	6-10yrs	Full service school	63& above	Emp- Township School	108	P
26	F	36-40	R-1	1-5yrs	Mainstream School	32-below	Obonjeni School	103	N

Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
27	F	36-45	R-1	11-15yrs	Mainstream School	33-42	Obonjeni School	103	P
28	F	36-45	R-1	6-10yrs	Full service school	36-42	Emp- Township School	112	P
29	F	36-45	R-1	1-5yrs	Full service school	63& above	Emp- Township School	108	P
30	F	21-35	R-1	6-10yrs	Full service school	33-42	Emp- Township School	114	P
31	M	21-35	5-7	6-10yrs	Full service school	33-42	Emp- Township School	105	P
32	M	21-35	5-7	11-15	Mainstream school	43-52	Obonjeni School	116	P
33	M	21-35	5-7	6-10yrs	Full service school	53-62	Emp- Township School	101	N
34	F	21-35	R-1	6-10yrs	Full service school	33-42	Emp- Township School	111	P
35	F	21-35	R-1	6-10yrs	Mainstream school	32& below	Obonjeni School	123	P
36	F	21-35	R-1	6-10yrs	Mainstream school	33-42	Obonjeni School	102	N
37	M	36-45	5-7	11-15yrs	Mainstream school	53-62	Obonjeni School	116	P
38	M	21-35	5-7	11-15yrs	Mainstream school	43-52	Obonjeni School	112	P
39	M	36-45	5-7	11-15yrs	Full service school	63& above	Emp- Township School	107	P
40	M	36-45	5-7	11-15yrs	Mainstream school	53-62	Emp- Township School	90	P
41	M	21-35	5-7	1-5 yrs	Mainstream school	33-42	Obonjeni School	95	N
42	M	36-45	5-7	1-5yrs	Full service school	33-42	Emp- Township School	111	P
43	M	36-45	5-7	11-15yrs	Full service school	53-62	Emp- Township School	98	N
44	M	36-45	5-7	11-15yrs	Full service school	43-52	Emp- Township School	104	P
45	M	21-35	5-7	11-15 yrs	Mainstream school	33-42	Obonjeni School	90	N
46	F	21-35	2-4	6-10yrs	Mainstream school	33-42	Obonjeni School	103	N
47	F	21-35	R-1	1-5yrs	Mainstream school	33-42	Obonjeni School	96	N
48	F	36-45	5-7	1-5yrs	Mainstream school	53-62	Obonjeni School	93	N
49	M	21-35	2-4	11-15 yrs	Mainstream school	63& above	Obonjeni School	121	P
50	F	21-35	5-7	6-10 yrs	Mainstream school	53-62	Obonjeni School	108	P
51	F	36-45	5-7	6-10yrs	Mainstream school	53-52	Obonjeni School	120	P
52	F	21-35	2-4	1-5yrs	Mainstream school	32 & below	Obonjeni School	97	N
53	F	21-35	2-4	11-15yrs	Mainstream school	32 & below	Obonjeni School	98	N
54	F	46-55	2-4	11-15yrs	Full service school	43-52	Emp- Township School	117	P

Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
55	M	21-35	5-7	6-10yrs	Full service school	63 & above	Emp- Township School	108	N
56	F	36-45	5-7	6-10yrs	Full service school	32 & below	Emp- Township School	91	N
57	F	36-45	5-7	6-10yrs	Mainstream school	53-62	Obonjeni School	113	P
58	M	21-35	5-7	6-10yrs	Mainstream school	43-52	Obonjeni School	111	P
59	F	36-45	2-4	6-10yrs	Mainstream school	33-42	Obonjeni School	101	N
60	F	21-35	5-7	1-5yrs	Mainstream school	43-52	Obonjeni School	102	N
61	M	36-45	5-7	11-15yrs	Mainstream school	33-42	Obonjeni School	99	N
62	F	36-45	5-7	6-10yrs	Mainstream school	63 & above	Obonjeni School	112	P
63	F	21-35	R-1	1-5yrs	Mainstream school	32& below	Obonjeni School	105	P
64	F	21-35	5-7	1-5yrs	Mainstream school	33-42	Obonjeni School	96	N
65	F	36-45	5-7	1-5yrs	Mainstream school	43-52	Obonjeni School	160	P
66	F	21-35	5-7	6-10yrs	Mainstream school	53-52	Obonjeni School	112	P
67	F	21-35	2-4	6-10yrs	Mainstream school	33-42	Obonjeni School	95	N
68	M	21-35	5-7	6-10yrs	Full service school	53-62	Emp- Township School	105	P
69	F	36-45	2-4	6-10yrs	Mainstream school	63 & above	Obonjeni School	104	P
70	F	36-45	2-4	11-15yrs	Mainstream school	33-42	Obonjeni School	104	P
71	M	21-35	5-7	1-5yrs	Mainstream school	63 & above	Obonjeni School	104	P
72	M	21-35	5-7	6-10yrs	Full service school	53-52	Emp- Township School	107	P
73	M	21-35	5-7	6-10yrs	Full service school	33-42	Emp- Township School	105	P
74	M	21-35	5-7	6-10yrs	Mainstream school	43-52	Emp- Township School	100	P
75	M	21-35	5-7	1-5yrs	Full service school	53-62	Emp- Township School	104	P
76	F	36-45	2-4	11-15yrs	Mainstream school	33-42	Obonjeni School	97	N
77	F	21-35	R-1	6-10yrs	Mainstream school	33-42	Obonjeni School	109	P
78	F	36-45	2-4	11-15yrs	Mainstream school	33-42	Obonjeni School	110	P
79	F	21-35	R-1	1-5yrs	Mainstream school	32& below	Obonjeni School	115	P
80	M	46-55	5-7	16-20	Mainstream school	32& below	Obonjeni School	102	N
81	F	21-35	5-7	11-15yrs	Mainstream school	43-52	Obonjeni School	109	P
82	M	36-45	5-7	11-15yrs	Mainstream school	43-52	Obonjeni School	95	N

Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
83	M	36-45	5-7	11-15yrs	Mainstream school	53-62	Obonjeni School	99	N
84	F	21-35	5-7	6-10yrs	Mainstream school	43-52	Obonjeni School	101	N
85	F	36-45	2-4	11-15yrs	Mainstream school	33-42	Obonjeni School	98	N
86	F	36-40	R-1	6-10yrs	Mainstream school	33-42	Obonjeni School	118	P
87	F	21-35	5-7	1-5yrs	Full service school	33-42	Emp- Township School	106	P
88	F	46-55	R-1	6-10yrs	Mainstream school	53-62	Obonjeni School	98	N
89	F	21-35	2-4	6-10yrs	Mainstream school	33-42	Emp- Township School	106	P
90	F	46-55	R-1	6-10yrs	Mainstream school	53-62	Emp- Township School	101	N
91	F	46-55	R-1	1-5yrs	Full service school	33-42	Emp- Township School	95	N
92	F	21-35	5-7	11-15yrs	Mainstream school	53-62	Obonjeni School	95	N
93	M	21-35	5-7	11-15yrs	Mainstream school	53-62	Obonjeni School	104	P
94	M	36-45	5-7	6-10yrs	Full service school	33-42	Emp- Township School	88	N
95	F	36-45	5-7	1-5yrs	Full service school	53-62	Emp- Township School	98	N
96	M	21-35	5-7	1-5yrs	Full service school	32 & below	Emp- Township School	104	P
97	M	21-35	5-7	11-15yrs	Full service school	33-42	Emp- Township School	92	N
98	M	21-35	5-7	6-10yrs	Mainstream school	33-42	Emp- Township School	97	N
99	F	21-35	5-7	1-5yrs	Mainstream school	36-42	Emp- Township School	102	N
100	M	21-35	5-7	11-15yrs	Mainstream school	63 & above	Emp- Township School	98	N
101	M	36-45	5-7	11-15yrs	Full service school	33-42	Emp- Township School	120	P
102	F	21-35	R-1	6-10yrs	Full service school	63 & above	Emp- Township School	103	N
103	F	21-35	R-1	1-5yrs	Full service school	43-52	Emp- Township School	110	N
104	F	21-35	R-1	1-5yrs	Full service school	53-62	Emp- Township School	107	P
105	M	21-35	5-7	1-5yrs	Mainstream school	63 & above	Emp- Township School	109	P
106	F	36-45	R-1	6-10yrs	Mainstream school	33-42	Emp- Township School	98	N
107	F	46-55	R-1	11-15yrs	Mainstream school	43-52	Emp- Township School	95	N
108	F	46-55	R-1	11-15yrs	Mainstream school	43-52	Emp- Township School	101	N
109	F	36-45	R-1	1-5yrs	Full service school	33-42	Emp- Township School	101	N
110	F	21-35	R-1	6-10yrs	Full service school	33-42	Emp- Township School	121	P



Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
111	M	36-45	5-7	11-15yrs	Mainstream school	53-52	Emp- Township School	102	N
112	M	36-45	5-7	6-10yrs	Mainstream school	63 & above	Emp- Township school	106	P
113	F	36-45	R-5	1-5yrs	Full service school	33-42	Emp- Township school	102	N
114	F	36-45	R-5	6-10yrs	Full service school	32 & below	Emp- Township school	105	P
115	F	21-35	R-1	1-5yrs	Mainstream school	33-42	Emp- Township school	107	P
116	M	21-35	5-7	6-10yrs	Special school	32 & below	Emp- Township school	109	P
117	F	36-45	R-1	6-10yrs	Special School	53-62	Emp- Township school	118	P
118	F	21-35	R-1	1-5yrs	Full Service School	32 & below	Emp- Township school	95	N
119	F	36-45	R-1	1-5yrs	Full service school	33-42	Emp- Township school	99	N
120	F	46-55	R-1	16-20yrs	Full service school	33-42	Emp- Township school	107	P
121	F	21-35	2-4	6-10yrs	Mainstream school	43-52	Obonjeni School	102	N
122	F	46-55	R-1	1-5yrs	Mainstream school	53-62	Emp- Township school	111	P
123	M	46-55	5-7	11-15yrs	Mainstream school	53-52	Obonjeni School	102	N
124	F	36-45	2-4	6-10yrs	Mainstream school	63 & above	Emp- Township school	110	P
125	F	21-35	R-1	1-5yrs	Mainstream school	32 & below	Obonjeni School	112	P
126	F	21-35	R-1	1-5yrs	Mainstream school	32 & below	Obonjeni School	110	P
127	F	21-35	5-7	1-5yrs	Mainstream school	33-42	Obonjeni School	98	N
128	F	21-35	R-1	1-5yrs	Full service school	33-42	Obonjeni School	116	P
129	F	21-35	5-7	6-10yrs	Mainstream school	33-42	Emp- Urban School	96	N
130	M	21-35	5-7	11-15yrs	Mainstream school	33-42	Emp- Urban School	82	N
131	F	46-55	R-1	16-20yrs	Mainstream school	33-42	Emp- Urban School	90	N
132	M	21-35	5-7	6-10yrs	Mainstream school	33-42	Emp- Urban School	80	N
133	F	46-55	5-7	11-15yrs	Mainstream school	33-42	Emp- Urban School	95	N
134	F	56 & above	2-4	21 & above	Mainstream school	33-42	Emp- Urban School	107	P
135	F	46-55	2-4	21 & above	Mainstream school	33-42	Emp- Urban School	109	P
136	F	21-35	5-7	6-10yrs	Mainstream school	32 & below	Emp- Urban School	87	N
137	F	46-55	5-7	21 & above	Mainstream school	33-42	Emp- Urban School	95	N
138	F	21-35	2-4	1-5yrs	Mainstream school	33-42	Emp- Urban School	83	N

Res No	Gender	Age	Grade	Teaching experience	Type of School	Class Size	Sample	Total score	A=ATTITUDE P=POSITIVE N=NEGATIVE
139	F	56 & above	5-7	21 & above	Mainstream school	33-42	Emp- Township school	98	N
140	F	21-35	2-4	1-5yrs	Mainstream school	33-42	Emp- Urban School	88	N
141	F	21-35	R-1	1-5yrs	Mainstream school	32 & below	Emp- Urban School	101	N
142	F	46-55	R-1	21 & above	Special School	32 & below	Emp- Urban School	103	N
143	F	46-55	R-1	6-10yrs	Mainstream school	33-42	Emp- Urban School	92	N
144	F	46-55	2-4	11-15yrs	Mainstream school	33-42	Emp- Urban School	83	N
145	F	36-45	5-7	1-5yrs	Mainstream school	63 & above	Emp- Urban School	109	P
146	F	46-55	2-4	11-15yrs	Remedial School	32 & below	Emp- Urban School	78	N
147	F	36-45	2-4	6-10yrs	Remedial School	32 & below	Emp- Urban School	86	N
148	F	46-55	2-4	11-15yrs	Remedial School	32 & below	Emp- Urban School	89	N
149	F	36-45	2-4	11-15yrs	Remedial School	32 & below	Emp- Urban School	92	N
150	F	46-55	5-7	21 & above	Remedial School	32 & below	Emp- Urban School	75	N
151	F	21-35	5-7	11-15yrs	Remedial School	32 & below	Emp- Urban School	95	N
152	F	36-45	R-1	11-15yrs	Remedial School	32 & below	Emp- Urban School	67	N
153	F	46-55	5-7	16-20yrs	Special School	32 & below	Emp- Urban School	68	N
154	F	36-45	R-1	11-15yrs	Special School	32 & below	Emp- Urban School	91	N
155	F	46-55	2-4	11-15yrs	Special School	32 & below	Emp- Urban School	90	N
156	F	36-45	2-4	11-15yrs	Special School	32 & below	Emp- Urban School	116	N
157	F	36-45	2-4	21 & above	Special School	32 & below	Emp- Urban School	67	N
158	F	46-55	5-7	21 & above	Remedial School	33-42	Emp- Urban School	80	N
159	F	36-45	5-7	1-5yrs	Remedial School	63 & above	Emp- Urban School	107	P
160	F	36-45	2-4	1-5yrs	Remedial School	63 & above	Emp- Urban School	104	P

**ANNEXURE G: RESPONSES TO SECTION B OF THE QUESTIONNAIRE**

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	28	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A
1	2	2	4	2	4	4	4	4	4	2	4	2	2	2	4	3	4	4	4	4	4	3	5	1	4	4	4	2	3	4	4	5	112	P	
2	1	4	4	4	4	4	3	4	2	2	3	3	4	2	4	3	2	4	4	4	3	3	4	2	4	4	3	3	2	2	2	1	2	100	N
3	2	4	4	2	3	2	4	4	5	2	5	5	2	2	5	3	2	5	4	5	2	3	4	2	5	1	5	4	4	1	2	1	1	107	P
4	2	2	4	4	4	4	5	5	5	1	4	5	3	2	4	4	1	4	4	4	2	2	4	1	4	4	5	4	1	4	2	3	2	120	P
5	3	1	4	2	3	3	2	5	5	1	5	4	2	1	5	3	2	5	5	5	4	1	4	2	5	5	5	5	1	3	2	3	4	129	P
6	3	4	4	2	5	4	5	2	5	1	5	2	2	1	4	4	3	5	4	5	2	1	5	2	4	4	5	2	1	4	2	1	2	117	P
7	2	2	4	5	5	4	2	3	4	1	5	4	5	3	4	1	2	4	5	3	2	3	3	2	5	5	5	5	2	3	1	2	3	131	P
8	3	1	5	2	3	2	5	5	4	2	5	1	4	4	4	2	2	5	5	5	1	3	2	2	4	2	5	4	2	2	2	2	1	101	N
9	2	2	4	2	4	4	4	4	4	4	2	1	5	4	2	1	1	2	2	4	4	2	5	2	2	4	4	4	4	4	2	2	4	101	N
10	2	2	5	4	4	4	5	5	4	1	4	2	4	1	5	2	4	5	4	4	1	4	1	4	1	4	4	5	2	4	4	5	2	112	P
11	2	2	2	2	4	4	2	4	3	2	4	2	2	4	4	2	2	4	4	4	2	4	4	2	4	4	4	4	2	2	2	4	4	83	N
12	4	2	3	4	2	4	3	2	1	2	1	2	4	4	4	1	2	4	2	4	4	3	2	4	4	4	4	2	2	2	2	3	4	85	N
13	1	2	2	4	2	2	2	5	5	1	3	2	5	2	5	2	4	5	5	5	2	3	4	1	5	2	2	5	2	2	2	2	2	98	N
14	5	3	4	1	2	3	2	1	2	2	4	5	4	4	1	1	1	2	4	3	4	2	5	5	5	3	4	1	1	2	1	2	1	87	N
15	4	2	3	4	2	5	5	2	1	1	5	1	4	1	4	3	1	5	5	5	4	3	4	1	5	5	5	5	2	2	1	1	2	82	N
16	1	5	5	4	4	3	2	4	2	2	4	5	4	1	5	2	2	5	5	4	2	2	4	3	2	5	5	5	3	4	3	3	4	109	P
17	2	1	5	5	5	5	5	1	1	2	5	5	4	1	5	1	1	5	5	5	3	1	5	1	5	5	3	2	1	5	2	2	2	106	P
18	4	2	4	2	4	2	4	4	4	2	4	2	2	4	2	2	2	5	4	5	4	2	4	2	4	4	4	4	1	2	2	1	4	102	N
19	2	2	4	4	4	4	2	4	5	1	4	4	4	2	2	3	2	4	3	4	4	2	4	3	2	4	4	2	2	2	3	5	2	103	N
20	1	2	4	4	4	4	1	4	4	3	4	4	4	1	5	2	1	4	2	5	4	2	4	2	5	4	5	4	2	2	1	4	4	106	P
21	1	2	4	5	3	4	2	2	3	2	4	2	2	2	4	1	4	4	4	5	2	3	4	4	4	5	4	3	4	1	2	4	4	104	P
22	3	2	4	1	4	4	1	4	2	2	4	5	4	3	1	3	2	4	3	4	1	5	5	3	4	4	4	2	4	4	3	3	3	105	P
23	2	2	4	4	4	4	2	4	5	1	4	4	4	2	1	3	2	4	4	1	2	2	3	3	4	4	4	4	1	1	2	3	2	96	N
24	2	2	4	4	5	2	4	4	4	2	5	5	4	5	4	2	2	4	2	4	4	2	4	2	2	4	5	4	4	1	2	2	4	110	P
25	5	2	4	2	5	4	2	2	1	2	4	4	4	3	5	3	4	5	4	4	4	2	4	2	4	4	2	3	2	2	4	4	2	108	P
26	1	3	4	4	4	4	4	5	4	1	5	4	1	1	5	2	2	5	4	5	2	2	5	1	5	4	4	4	1	4	1	1	1	103	N
27	2	2	4	4	3	4	2	1	4	3	1	4	4	5	1	4	3	4	4	2	2	5	3	4	1	4	4	2	4	5	4	4	4	103	N
28	2	2	4	3	4	4	4	4	3	4	4	4	4	3	3	2	3	4	4	4	4	4	4	3	4	4	3	4	2	3	2	3	3	112	P
29	5	2	5	2	4	4	5	1	2	1	4	5	1	1	5	4	2	4	2	4	4	2	4	2	5	4	5	5	2	5	2	2	3	108	P

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	28	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A
30	2	4	5	4	4	4	1	5	4	2	5	4	4	5	2	4	3	4	2	4	4	3	2	4	5	4	4	4	2	2	3	2	3114	P	
31	3	4	4	1	4	3	3	4	4	2	4	3	1	3	5	5	2	5	3	4	3	2	4	1	4	5	5	3	2	3	2	2	2105	P	
32	3	4	5	4	5	4	4	5	4	1	4	5	1	4	4	5	1	5	5	5	3	3	2	2	3	4	4	4	3	2	4	2	2116	P	
33	4	3	2	2	3	3	4	4	4	1	3	1	1	3	2	3	2	4	3	4	5	1	3	3	4	3	4	5	2	4	3	5	3101	N	
34	2	2	4	1	4	4	1	2	4	4	4	5	5	1	4	2	4	4	4	5	4	3	4	2	4	5	4	5	4	2	4	2	2111	P	
35	1	2	3	2	2	3	4	5	2	4	5	4	5	3	5	5	2	5	3	5	5	4	5	4	5	4	5	4	3	2	2	5	5123	P	
36	2	4	4	4	2	4	2	1	5	4	4	5	5	4	3	2	1	1	4	5	4	4	2	2	4	1	2	4	1	1	5	2	4102	N	
37	4	2	4	5	4	5	4	5	4	2	4	4	1	4	4	2	2	5	5	5	2	2	2	2	4	5	5	5	1	4	5	2	2116	P	
38	3	4	5	2	4	4	5	5	4	2	5	4	1	4	2	4	2	5	4	1	4	4	2	2	5	2	4	1	4	4	2	4	4112	P	
39	5	4	5	2	4	4	2	4	5	2	4	4	2	2	4	3	2	4	4	4	4	2	2	3	4	4	4	2	2	2	2	2	4107	P	
40	4	1	4	1	2	4	1	5	4	1	5	2	2	1	4	1	1	5	4	5	1	4	5	1	2	2	5	4	1	2	1	4	190	N	
41	2	4	4	5	4	3	1	5	4	2	3	4	1	2	5	2	2	3	2	5	1	2	3	1	4	2	5	3	2	2	2	3	295	N	
42	2	4	4	4	5	4	4	5	3	2	4	2	1	4	5	5	4	4	5	5	4	1	2	2	4	3	5	2	1	3	1	3	4111	P	
43	4	2	3	4	4	3	3	4	3	2	4	4	1	2	4	2	3	4	4	3	2	2	4	1	4	5	4	1	2	3	2	2	398	N	
44	3	2	5	1	4	4	5	5	1	2	4	1	2	2	4	2	2	5	5	4	2	5	4	2	5	4	5	4	2	2	2	2	2104	P	
45	2	2	2	1	2	1	2	5	5	2	5	3	1	1	5	1	2	4	5	3	3	3	3	2	1	2	5	4	3	1	2	3	490	N	
46	2	5	4	2	3	3	1	4	1	4	4	4	3	2	4	3	2	4	4	4	3	2	4	4	4	3	4	3	2	2	4	2	3103	N	
47	2	4	4	3	4	3	5	2	5	1	5	3	3	2	1	3	2	5	3	1	3	2	2	1	1	2	4	5	4	3	2	4	296	N	
48	4	1	4	2	5	4	5	5	5	4	5	2	1	4	2	3	1	5	2	5	2	2	1	2	5	2	1	1	4	1	1	1	193	N	
49	5	2	5	4	5	5	5	5	4	1	5	1	5	1	5	1	2	5	4	5	5	4	1	4	2	5	5	5	1	4	2	4	4121	P	
50	4	2	4	4	5	4	1	5	4	1	5	3	4	2	5	4	1	5	5	4	1	5	2	1	2	5	1	5	3	4	1	2	4108	P	
51	4	4	4	2	4	4	4	5	4	1	4	5	1	4	2	4	4	5	5	4	4	5	3	3	2	4	5	5	2	1	4	4	4120	P	
52	1	4	4	2	5	5	4	3	3	3	5	2	2	2	5	3	2	3	4	4	3	2	4	2	4	3	4	2	2	1	1	2	197	N	
53	1	2	3	2	3	4	5	4	4	2	4	4	3	3	4	2	1	2	4	4	3	2	3	2	4	4	4	4	2	2	2	3	298	N	
54	3	4	4	4	4	4	4	4	4	2	4	4	4	4	4	4	4	2	2	2	4	4	4	4	2	4	4	2	4	2	4	4	4117	P	
55	5	4	4	2	5	1	1	5	2	1	2	5	2	2	5	4	1	5	4	5	2	4	2	1	5	5	5	4	5	2	2	2	4108	P	
56	1	3	3	1	2	1	2	2	1	3	4	2	5	2	4	3	2	4	2	5	2	2	2	4	4	2	4	5	3	2	3	4	291	N	
57	4	2	5	4	4	4	5	4	5	2	4	4	5	2	5	2	2	5	4	4	2	1	2	2	4	4	4	5	2	4	2	2	2113	P	
58	3	2	4	4	4	4	4	4	4	2	4	4	2	4	4	2	2	4	4	4	4	2	4	2	4	4	4	2	2	4	2	4	4111	P	
59	2	4	2	2	2	2	1	4	4	2	4	4	2	5	3	2	5	4	4	4	4	4	1	5	2	2	4	4	5	1	2	3	2101	N	
60	3	2	5	4	5	4	2	4	5	2	4	4	2	4	4	2	2	3	4	2	1	2	2	5	5	4	4	4	1	2	2	2	1102	N	

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A
61	2	2	4	4	2	4	1	5	4	2	3	4	3	4	2	4	3	4	2	5	4	2	1	4	4	4	1	1	3	3	2	3	3	99	N
62	5	2	4	2	4	3	5	4	4	2	4	4	2	2	5	1	3	4	4	5	4	4	3	3	4	4	4	4	2	2	2	3	4	112	P
63	1	2	3	1	5	4	5	4	4	2	4	1	5	5	4	3	4	4	5	2	5	1	4	2	3	4	5	5	1	2	1	2	2	105	P
64	2	4	4	3	3	4	1	5	4	2	4	1	4	3	4	2	4	5	5	2	0	4	1	1	5	1	4	4	2	1	3	3	1	96	N
65	4	3	4	1	5	4	4	4	1	1	4	3	1	5	4	4	3	5	1	5	5	4	5	2	4	5	4	2	3	5	2	5	4	160	P
66	4	5	5	4	4	4	2	5	4	2	5	1	2	2	3	3	4	4	1	4	4	1	4	1	3	4	5	4	3	4	4	4	3	112	P
67	2	4	3	1	2	5	3	3	4	1	5	3	4	3	5	3	2	5	4	4	2	1	2	2	3	3	3	2	2	4	2	2	1	95	N
68	4	1	5	1	3	5	3	2	4	3	3	3	1	4	5	2	3	5	3	5	5	1	1	1	5	5	5	5	3	3	1	2	3	105	P
69	5	1	3	2	5	4	4	4	4	2	4	4	3	2	4	2	1	4	5	3	3	2	2	1	5	5	4	3	3	3	2	3	2	104	P
70	2	3	4	4	5	3	1	4	4	4	5	5	1	1	4	3	2	5	4	1	2	4	2	2	5	5	3	4	3	1	4	2	2	104	P
71	1	1	4	4	3	2	4	4	5	3	4	4	2	4	5	4	2	2	3	4	3	1	3	3	4	4	4	1	2	3	4	3	4	104	P
72	4	2	4	2	4	3	4	5	4	3	5	2	1	3	3	3	2	4	2	4	4	4	4	2	4	4	4	4	4	2	3	2	2	107	P
73	2	2	5	4	5	4	1	5	5	2	4	3	1	3	3	3	2	4	4	4	2	2	1	5	5	3	4	5	2	1	3	4	2	105	P
74	3	2	3	2	3	4	2	4	4	1	4	2	1	2	4	2	3	4	4	5	4	2	3	1	3	3	4	5	2	3	2	5	4	100	N
75	4	3	4	4	4	4	2	3	4	2	4	4	1	2	5	3	1	4	4	5	2	1	3	2	3	4	5	3	3	3	2	3	3	104	P
76	2	4	4	4	3	4	1	5	3	2	4	5	1	1	1	2	1	1	3	5	5	5	5	1	1	4	4	3	3	1	1	3	5	97	N
77	3	4	3	4	5	4	5	4	4	2	5	1	4	1	2	2	1	4	4	2	4	3	4	2	4	4	5	4	5	1	1	4	4	109	P
78	4	4	2	2	4	4	2	4	4	2	4	4	1	2	5	4	4	5	4	3	2	2	4	4	4	4	4	4	2	2	4	4	2	110	P
79	1	4	4	4	5	5	5	4	5	1	5	2	1	3	4	4	4	2	4	5	4	1	4	1	5	5	5	4	2	2	2	4	4	115	P
80	1	2	3	2	2	3	5	5	5	1	4	4	3	4	2	1	5	5	5	3	2	3	1	1	4	5	5	5	2	4	1	2	2	102	N
81	3	2	4	5	4	4	5	3	5	1	5	1	1	1	5	2	5	5	5	5	4	1	4	1	5	4	5	5	1	2	1	3	2	109	P
82	3	2	5	1	5	4	1	1	4	1	4	2	1	2	5	3	1	4	4	1	2	1	2	1	5	5	5	4	2	1	4	5	3	95	N
83	4	3	2	1	4	4	4	1	4	5	4	2	1	5	4	5	4	4	1	1	4	2	2	2	3	2	4	1	1	4	3	1	5	99	N
84	3	2	3	2	4	4	2	4	3	2	4	4	4	2	4	3	4	4	4	4	3	3	4	1	4	2	4	4	2	2	2	2	2	101	N
85	3	3	4	4	4	2	1	4	1	1	3	5	1	4	5	3	2	3	1	4	1	5	3	4	5	2	1	2	2	4	3	4	4	98	N
86	2	2	2	4	5	5	1	4	3	3	5	4	5	5	5	3	4	5	3	5	3	2	2	5	5	5	4	2	2	5	5	2	1	118	P
87	2	2	5	2	4	5	1	2	5	4	4	2	3	2	5	3	2	5	1	4	4	5	1	3	3	5	3	4	1	4	3	4	3	106	P
88	4	2	4	2	4	4	2	2	2	3	2	4	4	2	2	2	3	2	4	4	4	2	3	4	4	3	5	2	2	2	3	2	4	98	N
89	2	2	2	2	4	3	4	4	4	2	4	2	4	4	4	3	4	4	5	4	3	3	5	3	3	4	2	2	3	4	2	3	2	106	P
90	2	2	3	4	4	4	4	4	3	2	4	4	2	2	4	2	2	4	4	5	4	2	2	2	2	4	4	4	2	2	2	2	4	101	N
91	3	2	4	4	4	4	4	4	4	2	4	2	2	2	2	2	5	4	2	5	1	2	2	4	2	1	4	2	2	4	2	2	95	N	

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A
92	2	2	4	2	4	4	3	4	4	5	2	2	2	2	4	3	3	3	3	3	2	2	1	1	4	5	3	4	3	2	3	2	2	95	N
93	4	4	4	2	4	4	4	4	4	2	4	2	1	2	4	2	3	4	5	4	4	1	4	1	4	4	4	5	2	2	1	2	3	104	P
94	2	2	4	1	3	5	2	3	4	2	4	2	1	2	1	2	1	4	4	5	1	2	3	1	5	4	5	1	1	3	2	4	2	88	N
95	4	1	5	5	2	3	2	5	2	2	5	4	1	2	1	1	4	5	3	4	4	4	3	2	2	2	4	3	3	2	2	4	2	98	N
96	1	3	2	5	3	4	5	5	5	2	4	5	3	2	5	1	1	5	4	5	2	2	1	1	2	3	4	4	3	4	2	3	3	104	P
97	2	5	5	1	4	1	2	5	1	1	5	4	1	2	5	1	1	5	4	5	3	1	3	1	5	3	4	1	2	3	2	1	3	92	N
98	2	5	1	2	2	2	2	4	4	2	2	2	2	4	4	2	2	4	4	4	2	2	4	2	4	2	5	4	2	4	4	4	2	97	N
99	2	4	4	5	3	2	2	5	4	4	2	1	1	4	3	3	2	3	2	4	2	4	3	4	4	3	5	3	3	4	2	3	2	102	N
100	5	3	4	4	1	2	1	3	3	4	4	4	4	3	2	2	1	4	5	4	4	2	3	1	4	5	4	4	2	3	2	2	3	98	N
101	2	2	5	5	4	5	2	4	4	1	5	4	2	4	4	1	1	5	5	3	4	4	4	2	2	2	4	4	2	4	4	4	4	120	P
102	5	2	4	2	3	4	5	2	4	2	4	5	4	2	5	1	3	5	5	5	2	4	2	1	2	3	4	4	2	2	2	1	2	103	N
103	3	2	4	3	4	4	4	3	3	2	4	4	4	2	3	3	2	3	4	4	2	3	4	2	3	4	5	4	1	4	3	3	3	110	P
104	4	3	5	1	5	4	2	3	2	4	5	1	4	3	4	2	2	5	4	4	2	4	4	3	4	4	4	2	2	4	2	2	3	107	P
105	5	1	4	4	5	4	3	4	4	3	5	4	1	2	4	2	1	4	5	2	1	3	3	2	4	4	5	4	5	2	2	4	3	109	P
106	2	2	3	2	3	3	4	4	3	2	4	4	2	4	2	3	2	4	4	4	2	2	3	2	4	4	4	4	3	3	2	2	2	98	N
107	3	2	2	2	3	3	3	4	4	2	2	5	4	1	4	2	2	2	3	2	4	4	2	2	3	4	2	4	3	3	2	3	4	95	N
108	5	2	3	4	3	4	3	4	4	2	4	3	3	2	4	3	4	4	4	4	2	2	2	2	4	2	4	2	2	2	3	3	2	101	N
109	2	4	2	1	5	3	4	2	1	1	4	5	5	3	1	1	1	5	4	5	3	5	2	5	5	4	5	1	2	3	5	1	1	101	N
110	2	2	4	4	3	5	4	4	5	1	5	4	5	1	5	2	3	5	4	4	4	5	5	2	5	5	5	4	1	4	3	4	2	121	P
111	4	1	3	4	5	2	1	5	4	2	3	2	1	4	4	2	4	3	5	4	4	1	3	1	5	4	4	3	5	1	2	4	2	102	N
112	5	1	4	2	4	3	4	4	5	2	4	4	2	2	4	3	2	5	3	5	2	2	3	1	4	2	4	5	2	4	3	3	3	106	P
113	2	2	3	1	3	3	2	3	3	4	5	2	4	2	4	1	3	5	5	3	2	1	4	4	2	4	5	5	5	2	3	3	2	102	N
114	1	2	4	4	4	4	2	4	4	2	4	2	4	2	4	4	2	5	5	5	1	4	1	4	4	3	4	5	2	3	2	1	3	105	P
115	2	2	4	2	4	5	1	4	4	1	5	4	1	5	5	2	2	4	5	4	4	2	5	3	4	3	5	5	1	4	1	2	2	107	P
116	1	2	4	4	4	4	4	4	3	1	5	4	4	4	5	1	2	4	4	4	4	2	2	2	4	4	4	4	2	4	2	4	3	109	P
117	4	2	5	5	5	5	3	5	4	3	3	1	5	1	5	2	5	5	4	5	2	2	4	2	1	5	4	4	5	5	2	2	3	118	P
118	1	3	2	2	3	4	2	4	4	2	4	3	2	4	4	1	4	5	3	4	2	3	2	4	4	3	2	2	2	1	2	4	2	95	N
119	2	2	4	2	3	5	5	4	1	2	3	4	5	1	1	3	5	2	4	1	4	3	1	2	5	4	5	4	3	2	2	3	2	99	N
120	2	1	4	3	4	3	5	5	4	2	5	1	4	2	2	3	4	3	3	4	2	3	4	3	4	2	5	4	3	4	3	2	4	107	P
121	3	2	3	5	3	1	4	5	2	1	3	5	4	2	4	3	2	5	4	3	1	4	4	2	5	3	4	4	3	1	1	3	3	102	N
122	4	2	2	5	5	5	4	2	5	3	3	2	4	2	5	3	3	2	2	5	4	2	2	1	4	3	5	5	1	5	3	3	5	111	P

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A	
123	4	2	4	3	4	3	4	4	3	2	3	4	2	2	4	2	4	4	4	4	4	2	4	2	4	3	4	2	2	3	2	2	2	102	N	
124	5	2	2	2	4	4	5	4	1	3	4	5	2	5	5	4	3	4	3	2	1	5	1	4	5	4	5	4	2	4	1	3	2	110	P	
125	1	2	5	4	5	5	5	4	3	1	5	3	4	4	4	1	1	5	5	5	2	4	2	4	5	2	4	3	5	3	2	3	1	98	N	
126	1	4	4	4	4	5	2	4	4	2	4	2	5	1	5	2	1	3	5	5	1	2	5	5	4	4	4	4	2	4	4	2	2	116	P	
127	2	2	5	2	3	4	5	5	1	2	5	1	1	3	5	2	4	2	4	2	4	2	2	5	2	4	5	1	2	4	4	1	2	96	N	
128	2	4	4	4	4	2	2	4	4	2	5	2	3	4	4	4	2	4	4	4	4	2	4	2	4	4	5	4	4	4	4	3	4	82	N	
129	2	2	4	2	4	3	3	4	2	2	3	2	2	2	5	3	5	5	5	5	3	2	4	2	2	3	3	2	2	3	2	2	1	90	N	
130	2	4	2	1	3	3	5	2	2	1	3	1	1	1	5	2	5	3	5	5	1	2	2	1	5	3	3	3	1	1	1	1	2	80	N	
131	2	4	3	3	3	3	5	2	4	1	4	1	2	1	5	2	5	3	4	4	2	1	3	1	4	2	4	3	2	2	1	1	3	95	N	
132	2	4	4	1	1	1	2	1	1	1	4	1	1	1	5	1	5	4	5	4	2	2	4	2	1	5	1	3	2	5	1	1	2	107	P	
133	2	4	4	1	1	2	5	2	3	2	3	2	3	2	5	3	2	5	4	5	2	2	3	3	4	3	3	3	2	2	2	3	3	109	P	
134	2	4	4	4	3	3	2	2	4	2	4	4	4	2	4	2	5	3	4	4	3	2	4	1	5	3	4	3	2	4	2	4	4	4	87	N
135	2	4	5	5	4	4	1	4	2	2	4	4	2	2	2	4	4	4	4	4	4	4	4	2	4	4	4	2	3	3	2	4	2	95	N	
136	1	4	5	1	1	1	5	1	5	1	5	3	1	2	5	2	5	5	5	4	1	1	2	1	4	1	4	4	2	2	1	1	1	83	N	
137	2	2	4	3	4	4	3	4	4	2	4	4	3	2	4	2	1	4	4	4	2	2	3	1	4	3	4	3	2	3	1	1	2	98	N	
138	2	1	2	2	3	2	5	2	3	5	3	1	3	3	5	1	1	5	5	5	1	1	1	1	5	1	2	3	2	2	1	2	2	88	N	
139	2	4	4	4	4	4	2	4	3	2	4	2	3	2	4	2	2	3	5	3	3	2	4	2	1	4	3	1	4	1	2	4	4	101	N	
140	2	2	4	2	3	3	5	2	4	1	3	4	3	1	5	2	1	4	5	4	3	2	4	1	4	3	3	1	1	2	1	2	1	103	N	
141	1	4	4	4	4	4	2	4	4	1	4	3	4	2	4	2	1	5	5	5	2	2	4	1	2	3	4	4	2	4	1	3	2	92	N	
142	2	4	5	3	4	4	1	5	4	2	5	5	1	2	4	2	4	5	4	2	4	2	1	2	3	5	4	2	2	4	2	2	2	83	N	
143	2	5	4	2	3	4	4	3	3	4	3	2	2	2	4	2	2	4	4	4	2	2	2	1	2	3	4	2	3	2	3	1	2	109	P	
144	2	4	2	1	2	2	5	1	4	2	3	1	1	1	4	2	3	3	4	3	4	4	3	1	4	3	4	2	2	1	1	2	2	78	N	
145	5	2	4	4	4	5	2	4	5	1	4	2	5	2	4	2	1	4	4	4	4	2	2	4	4	4	5	4	4	2	2	2	2	86	N	
146	1	4	4	1	1	2	5	1	4	4	2	1	3	1	5	1	1	1	5	5	2	1	5	3	1	1	5	3	1	1	1	1	1	78	N	
147	1	4	2	2	1	2	2	1	4	4	2	4	4	2	4	2	1	1	4	4	1	2	2	4	2	2	4	4	4	4	2	2	2	86	N	
148	1	4	4	2	2	4	1	4	4	1	4	2	5	1	5	1	1	2	4	5	2	1	2	1	4	5	5	5	1	3	1	1	1	89	N	
149	1	2	4	2	3	4	4	1	4	1	4	4	4	2	3	4	2	4	4	4	2	2	2	1	5	2	3	3	1	4	2	3	1	92	N	
150	1	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2	2	2	4	4	2	4	2	2	2	2	4	2	2	2	2	2	2	75	N	
151	1	4	4	2	2	4	4	2	2	2	4	4	2	4	1	1	2	4	4	4	3	2	2	4	2	4	4	2	2	4	2	4	2	95	N	
152	1	4	1	1	2	1	1	1	1	2	2	1	4	1	5	1	1	4	5	5	1	1	5	1	1	1	5	3	1	1	1	1	1	67	N	
153	1	2	4	1	1	2	1	1	2	2	2	2	2	1	5	1	1	5	3	5	2	2	2	1	1	2	4	2	4	1	1	1	1	68	N	

R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	28	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	T	A
154	3	3	4	3	3	3	1	3	3	1	4	1	4	1	5	1	3	3	3	5	2	2	4	2	4	2	3	4	2	3	2	2	2	91	N
155	1	2	2	2	4	3	2	3	4	2	2	4	2	2	4	2	3	2	4	4	4	2	3	2	3	2	4	4	2	4	2	2	2	90	N
156	1	5	5	2	4	4	5	5	5	1	5	5	1	1	5	2	2	5	4	5	5	2	5	2	5	4	4	4	1	4	2	4	2	116	P
157	1	2	2	2	2	2	1	1	1	2	1	1	1	1	5	2	1	2	4	3	2	1	2	1	5	3	4	4	1	2	1	2	2	67	N
158	2	4	2	2	2	2	1	2	4	1	3	1	3	1	5	2	1	4	4	5	2	2	4	2	2	2	4	3	2	1	1	2	2	80	N
159	5	2	5	4	3	4	2	4	4	2	4	3	4	1	5	2	2	4	5	4	3	2	2	2	4	4	5	5	1	3	3	2	2	107	P
160	4	2	5	4	4	4	1	5	4	2	4	3	5	2	4	1	1	4	4	4	2	2	1	1	3	3	5	5	2	4	3	4	1	104	P



R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
1	A	D	A	D	D	A	D	D	A	D	A	A	A	D	US	D	D	D	D	D	D	US	SD	SA	D	D	D	A	US	D	D	SD	
2	D	D	D	D	D	US	D	A	A	US	US	D	A	D	US	A	D	D	D	US	US	D	A	D	D	US	US	A	A	A	SA	A	
3	D	D	A	US	A	D	D	SD	A	SD	SD	A	A	SD	US	A	SD	D	SD	A	US	D	A	SD	SA	SD	D	D	SA	A	SA	SA	
4	A	D	D	D	D	SD	SD	SD	SA	D	SD	US	A	D	D	SA	D	D	D	A	A	D	SA	D	D	SD	D	SA	D	A	US	A	
5	SA	D	A	US	US	A	SD	SD	SA	SD	D	A	SA	SD	US	A	SD	SD	SD	D	SA	D	A	SD	SD	SD	SD	SA	US	A	US	D	
6	D	D	A	SD	D	SD	A	SD	SA	SD	A	A	SA	D	D	US	SD	D	SD	A	SA	SD	A	D	D	SD	A	SA	D	A	SA	A	
7	A	D	SD	SD	D	A	US	D	SA	SD	D	SD	US	D	SA	A	D	SD	US	A	US	US	A	SD	SD	SD	SD	A	US	SA	A	US	
8	SA	SD	A	US	A	SD	SD	D	A	SD	SA	D	D	D	A	A	SD	SD	SD	SA	US	A	A	D	A	SD	D	A	A	A	A	SA	
9	A	D	A	D	D	D	D	D	D	A	SA	SD	D	A	SA	SA	A	A	D	D	A	SD	A	A	D	D	D	D	D	A	A	D	
10	A	SD	D	D	D	SD	SD	D	SA	D	A	D	SA	SD	A	D	SD	D	D	SA	D	SA	D	SA	D	D	SD	A	D	D	SD	A	
11	A	A	A	D	D	A	D	US	A	D	A	A	D	D	A	A	D	D	D	A	D	D	A	D	D	D	D	A	A	A	A	D	D
12	A	US	D	A	D	US	A	SA	A	SA	A	D	D	D	SA	A	D	A	D	D	US	A	D	D	D	D	A	A	A	A	US	D	
13	A	A	D	A	A	A	SD	SD	SA	US	A	SD	A	SD	A	D	SD	SD	SD	A	US	D	SA	SD	A	A	SD	A	A	A	A	A	
14	US	D	SA	A	US	A	SA	A	A	D	SD	D	D	SA	SA	SA	A	D	US	D	A	SD	SD	SD	US	D	SA	SA	A	SA	A	SA	
15	A	US	D	A	SD	SD	A	SA	SA	SD	SA	D	SA	D	US	SA	SD	SD	SD	D	US	D	SA	SD	SD	SD	SD	A	A	SA	SA	A	
16	SD	SD	D	D	US	A	D	A	A	D	SD	D	SA	SD	A	A	SD	SD	D	A	A	D	US	A	SD	SD	SD	US	D	US	US	D	
17	SA	SD	SD	SD	SD	SD	SA	SA	A	SD	SD	D	SA	SD	SA	SA	SD	SD	SD	US	SA	SD	SA	SD	SD	US	A	SA	SD	A	A	A	
18	A	D	A	D	A	D	D	D	A	D	A	A	D	A	A	A	SD	D	SD	D	A	D	A	D	D	D	D	SA	A	A	SA	D	
19	A	D	D	D	D	A	D	SD	SA	D	D	D	A	A	US	A	D	US	D	D	A	D	US	A	D	D	A	A	A	US	SD	A	
20	A	D	D	D	D	SA	D	D	US	D	D	D	SA	SD	A	SA	D	A	SD	D	A	D	A	SD	D	SD	D	A	A	SA	D	D	
21	A	D	SD	US	D	A	A	US	A	D	A	A	A	D	SA	D	D	D	SD	A	US	D	D	D	SD	D	US	D	SA	A	D	D	
22	A	D	SA	D	D	SA	D	A	A	D	SD	D	US	SA	US	A	D	US	D	SA	SD	SD	US	D	D	D	A	D	D	US	US	US	
23	A	D	D	D	D	A	D	SD	SA	D	D	D	A	SA	US	A	D	D	SA	A	A	US	US	D	D	D	D	SA	SA	A	US	A	
24	A	D	D	SD	A	D	D	D	A	SD	SD	D	SD	D	A	A	D	A	D	D	A	D	A	A	D	SD	D	D	SA	A	A	D	
25	A	D	A	SD	D	A	A	SA	A	D	D	D	US	SD	US	D	SD	D	D	D	A	D	A	D	D	A	US	A	A	D	D	A	
26	US	D	D	D	D	D	SD	D	SA	SD	D	SA	SA	SD	A	A	SD	D	SD	A	A	SD	SA	SD	D	D	D	SA	D	SA	SA	SA	
27	A	D	D	US	D	A	SA	D	US	SA	D	D	SD	SA	D	US	D	D	A	A	SD	US	D	SA	D	D	A	D	SD	D	D	D	
28	A	D	US	D	D	D	D	US	D	D	D	D	US	US	A	US	D	D	D	D	D	D	US	D	D	US	D	A	US	A	US	US	
29	A	SD	A	D	D	SD	SA	A	SA	D	SD	SA	SA	SD	D	A	D	A	D	D	A	D	A	SD	D	SD	SD	A	SD	A	A	US	
30	D	SD	D	D	D	SA	SD	D	A	SD	D	D	SD	A	D	US	D	A	D	D	US	A	D	SD	D	D	D	A	A	US	A	US	
31	D	D	SA	D	US	US	D	D	A	D	US	SA	US	SD	SD	A	SD	US	D	US	A	D	SA	D	SD	SD	US	A	US	A	A	A	

32	D	SD	D	SD	D	D	SD	D	SA	D	SD	SA	D	D	SD	SA	SD	SD	SD	US	US	A	A	US	D	D	D	US	A	D	A	A
33	US	A	A	US	US	D	D	D	SA	US	SA	SA	US	A	US	A	D	US	D	SD	SA	US	US	D	US	D	SD	A	D	US	SD	US
34	A	D	SA	D	D	SA	A	D	D	D	SD	SD	SA	D	A	D	D	D	SD	D	US	D	A	D	SD	D	SD	D	A	D	A	A
35	A	US	A	A	US	D	SD	A	D	SD	D	SD	US	SD	SD	A	SD	US	SD	SD	D	SD	D	SD	D	SD	D	US	A	A	SD	SD
36	D	D	D	A	D	A	SA	SD	D	D	SD	SD	D	US	A	SA	SA	D	SD	D	D	A	A	D	SA	A	D	SA	SA	SD	A	D
37	A	D	SD	D	SD	D	SD	D	A	D	D	SA	D	D	A	A	SD	SD	SD	A	A	A	A	D	SD	SD	SD	SA	D	SD	A	A
38	D	SD	A	D	D	SD	SD	D	A	SD	D	SA	D	A	D	A	SD	D	SA	D	D	A	A	SD	A	D	SA	D	D	A	D	D
39	D	SD	A	D	D	A	D	SD	A	D	D	A	A	D	US	A	D	D	D	D	A	A	US	D	D	D	A	A	A	A	A	D
40	SA	D	SA	A	D	SA	SD	D	SA	SD	A	A	SA	D	SA	SA	SD	D	SD	SA	D	SD	SA	A	A	SD	D	SA	A	SA	D	SA
41	D	D	SD	D	US	SA	SD	D	A	US	D	SA	A	SD	A	A	US	A	SD	SA	A	US	SA	D	A	SD	US	A	A	A	US	A
42	D	D	D	SD	D	D	SD	US	A	D	A	SA	D	SD	SD	D	D	SD	SD	D	SA	A	A	D	US	SD	A	SA	US	SA	US	D
43	A	US	D	D	US	US	D	US	A	D	D	SA	A	D	A	US	D	D	US	A	A	D	SA	D	SD	D	SA	A	US	A	A	US
44	A	SD	SA	D	D	SD	SD	SA	A	D	SA	A	A	D	A	A	SD	SD	D	A	SD	D	A	SD	D	SD	D	A	A	A	A	A
45	A	A	SA	A	SA	A	SD	SD	A	SD	US	SA	SA	SD	SA	A	D	SD	US	US	US	US	A	SA	A	SD	D	US	SA	A	US	D
46	SD	D	A	US	US	SA	D	SA	D	D	D	US	A	D	US	A	D	D	D	US	A	D	D	D	US	D	US	A	A	D	A	US
47	D	D	US	D	US	SD	A	SD	SA	SD	US	US	A	SA	US	A	SD	US	SA	US	A	A	SA	SA	A	D	SD	D	US	A	D	A
48	SA	D	A	SD	D	SD	SD	SD	D	SD	A	SA	D	A	US	SA	SD	A	SD	A	A	SA	A	SD	A	SA	SA	D	SA	SA	SA	SA
49	A	SD	D	SD	SD	SD	SD	D	SA	SD	SA	SD	SA	SD	SA	A	SD	D	SD	SD	D	SA	D	A	SD	SD	SD	SA	D	A	D	D
50	A	D	D	SD	D	SA	SD	D	SA	SD	US	D	A	SD	D	SA	SD	SD	D	SA	SD	A	SA	A	SD	SA	SD	US	D	SA	A	D
51	D	D	A	D	D	D	SD	D	SA	D	SD	SA	D	A	D	D	SD	SD	D	D	SD	US	US	A	D	SD	SD	A	SA	D	D	D
52	D	D	A	SD	SD	D	US	US	US	SD	A	A	A	SD	US	A	US	D	D	US	A	D	A	D	US	D	A	A	SA	SA	A	SA
53	A	US	A	US	D	SD	D	D	A	D	D	US	US	D	A	SA	A	D	D	US	A	US	A	D	D	D	D	A	A	A	US	A
54	D	D	D	D	D	D	D	D	A	D	D	D	D	D	D	D	A	A	A	D	D	D	D	A	D	D	A	D	A	D	D	D
55	D	D	A	SD	SA	SA	SD	A	SA	A	SD	A	A	SD	D	SA	SD	D	SD	A	D	A	SA	SD	SD	SD	D	SD	A	A	A	D
56	US	US	SA	A	SA	A	A	SA	US	D	A	SD	A	D	US	A	D	A	SD	A	A	A	D	D	A	D	SD	US	A	US	D	A
57	A	SD	D	D	D	SD	D	SD	A	D	D	SD	A	SD	A	A	SD	D	D	A	SA	A	A	D	D	D	SD	A	D	A	A	A
58	A	D	D	D	D	D	D	D	A	D	D	A	D	D	A	A	D	D	D	D	A	D	A	D	D	D	A	A	D	A	D	D
59	D	A	A	A	A	SA	D	D	A	D	D	A	SD	US	A	SD	D	D	D	D	D	SA	SD	A	A	D	D	SD	SA	A	US	A
60	A	SD	D	SD	D	A	D	SD	A	D	D	A	D	D	A	A	US	D	A	SA	A	A	SD	SD	D	D	D	SA	A	A	A	SA
61	A	D	D	A	D	SA	SD	D	A	US	D	US	D	A	D	US	D	A	SD	D	A	SA	D	D	D	SA	SA	US	US	A	US	US
62	A	D	A	D	US	SD	D	D	A	D	D	A	A	SD	SA	US	D	D	SD	D	D	US	US	D	D	D	D	A	A	A	US	D
63	A	US	SA	SD	D	SD	D	D	A	D	SA	SD	SD	D	US	D	D	SD	A	SD	SA	D	A	US	D	SD	SD	SA	A	SA	A	A
64	D	D	US	US	D	SA	SD	D	A	D	SA	D	US	D	A	D	SD	SD	A	0	D	SA	SA	SD	SA	D	D	A	SA	US	US	SA

85	US	D	SA	SD	D	D	D	SA	SA	D	US	SA	SD	D	D	US	SD	SA	SD	SD	D	SD	A	D	SD	D	A	US	SD	A	SD	D
86	SD	SD	D	D	D	A	SD	D	A	SD	SA	A	A	US	US	D	D	SA	D	D	SA	D	SA	US	D	SD	D	US	D	D	D	US
87	D	US	SA	A	SD	US	US	D	SA	SD	US	D	US	SD	US	A	SD	D	D	A	SA	A	A	US	US	US	A	A	D	A	A	SA
88	SA	SD	SA	US	SD	US	A	D	US	US	US	SA	D	SD	A	US	SD	US	SD	SD	SA	SA	SA	SD	SD	SD	SD	US	US	SA	A	US
89	SA	US	A	SD	D	D	D	D	A	D	D	US	A	D	A	SA	D	SD	US	US	A	A	SA	SD	SD	D	US	US	US	A	US	A
90	US	D	D	SD	US	SA	D	D	D	SD	SD	SA	SA	D	US	A	SD	D	SA	A	D	A	A	SD	SD	US	D	US	SA	D	A	A
91	SA	D	D	US	A	D	D	SD	US	D	D	A	D	SD	D	A	A	US	D	US	SA	US	US	D	D	D	SA	A	US	D	US	D
92	A	D	A	D	US	D	D	D	US	A	D	D	A	A	D	A	A	D	D	SD	D	A	A	A	A	D	D	D	A	A	A	D
93	A	D	SD	D	D	SD	US	SD	SA	D	D	SA	SA	SD	A	SD	SD	SD	SD	US	A	SA	SA	D	SD	SD	SD	SA	A	SA	US	A
94	A	US	A	US	D	A	D	D	SA	D	A	SA	A	D	A	SA	D	D	A	US	SA	SA	A	SA	SD	SD	D	A	SA	SA	US	A
95	A	SD	SA	SD	D	SA	D	US	A	D	D	A	D	D	A	SA	D	D	SD	D	US	US	D	SD	SD	SD	US	US	SA	SA	US	SD
96	US	D	D	D	A	US	D	SA	SA	US	SD	SA	D	SD	US	A	US	SA	D	SA	SD	US	D	SD	A	SA	A	A	D	US	US	A
97	D	D	D	US	D	SA	SD	US	A	D	SD	SA	SA	SA	A	SA	SA	US	SD	SD	SD	SD	SA	SA	D	D	US	US	SA	SA	US	SD
98	D	US	D	SD	D	SD	D	D	A	SD	SA	D	SA	A	A	SA	D	D	A	D	US	D	A	D	D	SD	D	SD	SA	SA	D	D
99	D	A	A	D	D	A	D	D	A	D	D	SA	A	SD	D	D	SD	D	US	A	A	D	D	D	D	D	D	A	A	D	D	A
100	D	D	D	SD	SD	SD	D	SD	SA	SD	A	SA	US	D	D	D	A	D	SD	D	SA	D	SA	SD	SD	SD	D	A	A	A	D	D
101	A	US	A	A	US	SD	SD	SD	SA	D	D	US	D	A	SA	SD	SD	SD	US	A	US	SA	SA	D	SD	SD	SD	A	D	SA	A	A
102	A	D	SD	D	D	SD	US	SD	SA	SD	SA	SA	SA	SD	A	SD	SD	SD	SD	D	SA	D	SA	SD	D	SD	SD	SA	A	SA	US	A
103	A	SD	SA	SD	D	SA	SA	D	SA	D	A	SA	A	SD	US	SA	D	D	SA	A	SA	A	SA	SD	SD	SD	D	A	SA	D	SD	US
104	US	A	SA	D	D	D	SA	D	SD	D	A	SA	SD	D	SD	D	D	SA	SA	D	A	A	A	US	A	D	SA	SA	D	US	SA	SD
105	A	US	A	D	D	A	D	US	A	D	D	D	A	D	US	D	D	D	D	US	US	D	SA	D	A	D	D	A	A	A	A	A
106	US	D	D	D	A	SA	D	SA	SA	US	SD	SA	D	SD	US	A	US	SA	D	SA	SD	US	D	SD	A	SA	A	A	D	US	D	D
107	A	A	D	SD	SD	SA	D	US	US	SD	D	SD	SD	SD	US	D	SD	US	SD	US	A	A	SD	SD	SD	D	A	A	SD	SD	A	SA
108	A	SD	A	D	SD	SA	A	SD	D	D	A	US	A	SD	US	A	SD	SA	D	D	SD	SA	US	US	SD	US	D	SA	D	US	D	US
109	A	D	A	D	D	A	A	A	US	A	D	D	A	A	A	US	A	D	D	D	A	US	D	D	US	SD	A	A	A	US	A	D
110	A	A	A	D	US	D	D	D	A	D	A	D	D	D	US	D	D	SD	D	US	US	SD	US	US	D	A	A	US	D	A	US	A
111	A	US	D	D	D	D	D	US	A	D	D	A	A	D	A	A	D	D	SD	D	A	A	A	A	D	D	D	A	A	A	A	D
112	A	D	D	D	D	D	D	D	A	D	A	A	A	A	A	SD	D	A	SD	SA	A	A	D	A	SA	D	A	A	D	A	A	A
113	A	D	A	D	D	US	D	D	SD	A	A	A	A	D	US	US	US	US	US	A	A	SA	SA	D	SD	US	D	US	A	US	A	A
114	D	D	A	D	D	D	D	D	A	D	A	SA	A	D	A	US	D	SD	D	D	SA	D	SA	D	D	D	SD	A	A	SA	A	US
115	A	D	SA	US	SD	A	US	D	A	D	A	SA	A	SA	A	SA	D	D	SD	SA	A	US	SA	SD	D	SD	SA	SA	US	A	D	A
116	SA	SD	SD	A	US	A	SD	A	A	SD	D	SA	A	SA	SA	D	SD	US	D	D	D	US	A	A	A	D	US	US	A	A	D	A
117	US	A	SD	US	D	SD	SD	SD	A	D	SD	US	A	SD	SA	SA	SD	D	SD	A	A	SA	SA	A	US	D	D	US	D	A	US	US
118	SD	SD	SA	D	SA	A	SD	SA	SA	SD	D	SA	A	SD	SA	SA	SD	D	SD	US	SA	US	SA	SD	US	D	SA	A	US	A	SA	US

98	SD	SA	A	A	A	A	D	D	A	A	A	A	D	D	A	A	D	D	D	A	A	D	A	D	A	SD	D	A	D	D	D	A
99	D	D	SD	US	A	A	SD	D	D	A	SA	SA	D	US	US	A	US	A	D	A	D	US	D	D	US	SD	US	US	D	A	US	A
100	US	D	D	SA	A	SA	US	US	D	D	D	D	US	A	A	SA	D	SD	D	D	A	US	SA	D	SD	D	D	A	US	A	A	US
101	A	SD	SD	D	SD	A	D	D	SA	SD	D	A	D	D	SA	SA	SD	SD	US	D	D	D	A	A	A	D	D	A	D	D	D	D
102	A	D	A	US	D	SD	A	D	A	D	SD	D	A	SD	SA	US	SD	SD	SD	A	D	A	SA	A	US	D	D	A	A	A	SA	A
103	A	D	US	D	D	D	US	US	A	D	D	D	A	US	US	A	US	D	D	A	US	D	A	US	D	SD	D	SA	D	US	US	US
104	US	SD	SA	SD	D	A	US	A	D	SD	SA	D	US	D	A	A	SD	D	D	A	D	D	US	D	D	D	A	A	D	A	A	US
105	SA	D	D	SD	D	US	D	D	US	SD	D	SA	A	D	A	SA	D	SD	A	SA	US	US	A	D	D	SD	D	SD	A	A	D	US
106	A	US	A	US	US	D	D	US	A	D	D	A	D	A	US	A	D	D	D	A	A	US	A	D	D	D	D	US	US	A	A	A
107	A	A	A	US	US	US	D	D	A	A	SD	D	SA	D	A	A	A	US	A	D	D	A	A	US	D	A	D	US	US	A	US	D
108	A	US	D	US	D	US	D	D	A	D	US	US	A	D	US	D	D	D	D	A	A	A	A	D	A	D	A	A	A	US	US	A
109	D	A	SA	SD	US	D	A	SA	SA	D	SD	SD	US	SA	SA	SA	SD	D	SD	US	SD	A	SD	SD	D	SD	SA	A	US	SD	SA	SA
110	A	D	D	US	SD	D	D	SD	SA	SD	D	SD	SA	SD	A	US	SD	D	D	D	SD	SD	A	SD	SD	SD	D	SA	D	US	D	A
111	SA	US	D	SD	A	SA	SD	D	A	US	A	SA	D	D	A	D	US	SD	D	D	SA	US	SA	SD	D	D	US	SD	SA	A	D	A
112	SA	D	A	D	US	D	D	SD	A	D	D	A	A	D	US	A	SD	US	SD	A	A	US	SA	D	A	D	SD	A	D	US	US	US
113	A	US	SA	US	US	A	US	US	D	SD	A	D	A	D	SA	US	SD	SD	US	A	SA	D	D	A	D	SD	SD	SD	A	US	US	A
114	A	D	D	D	D	A	D	D	A	D	A	D	A	D	D	A	SD	SD	SD	SA	D	SA	D	D	US	D	SD	A	US	A	SA	US
115	A	D	A	D	SD	SA	D	D	SA	SD	D	SA	SD	SD	A	A	D	SD	D	D	A	SD	US	D	US	SD	SD	SA	D	SA	A	A
116	A	D	D	D	D	D	D	US	SA	SD	D	D	D	SD	SA	A	D	D	D	D	A	A	A	D	D	D	D	A	D	A	D	US
117	A	SD	SD	SD	SD	US	SD	D	US	US	SA	SD	SA	SD	A	SD	SD	D	SD	A	A	D	A	SA	SD	D	D	SD	SD	A	A	US
118	US	A	A	US	D	A	D	D	A	D	US	A	D	D	SA	D	SD	US	D	A	US	A	D	D	US	A	A	A	SA	A	D	A
119	A	D	A	US	SD	SD	D	SA	A	US	D	SD	SA	SA	US	SD	A	D	SA	D	US	SA	A	SD	D	SD	D	US	A	A	US	A
120	SA	D	US	D	US	SD	SD	D	A	SD	SA	D	A	A	US	D	US	US	D	A	US	D	US	D	A	SD	D	US	D	US	A	D
121	A	US	SD	US	SA	D	SD	A	SA	US	SD	D	A	D	US	A	SD	D	US	SA	D	D	A	SD	US	D	D	US	SA	SA	US	US
122	A	A	SD	SD	SD	D	A	SD	US	US	A	D	A	SD	US	US	A	A	SD	D	A	A	SA	D	US	SD	SD	SA	SD	US	US	SD
123	A	D	US	D	US	D	D	US	A	US	D	A	A	D	A	D	D	D	D	D	A	D	A	D	US	D	A	A	US	A	A	A
124	A	A	A	D	D	SD	D	SA	US	D	SD	A	SD	SD	D	US	D	US	A	SA	SD	SA	D	SD	D	SD	D	A	D	SA	US	A
125	A	SD	D	SD	SD	SD	D	US	SA	SD	US	D	D	D	SA	SA	SD	SD	SD	A	D	A	D	SD	A	D	US	SD	US	A	US	SA
126	D	D	D	D	SD	A	D	D	A	D	A	SD	SA	SD	A	SA	US	SD	SD	SA	A	SD	SD	D	D	D	D	A	D	D	A	A
127	A	SD	A	US	D	SD	SD	SA	A	SD	SA	SA	US	SD	A	D	A	D	A	D	A	A	SD	A	D	SD	SA	A	D	D	SA	A
128	D	D	D	D	A	A	D	D	A	SD	A	US	D	D	D	A	D	D	D	D	A	D	A	D	D	SD	D	D	D	D	US	D
129	A	D	A	D	US	US	D	A	A	US	A	A	A	SD	US	SD	SD	SD	SD	US	A	D	A	A	US	US	A	A	US	A	A	SA
130	D	A	SA	US	US	SD	A	A	SA	US	SA	SA	SA	SD	A	SD	US	SD	SD	SA	A	A	SA	SD	US	US	US	SA	SA	SA	SA	A

131	D	US	US	US	US	SD	A	D	SA	D	SA	A	SA	SD	A	SD	US	D	D	A	SA	US	SA	D	A	D	US	A	A	SA	SA	US
132	D	D	SA	SA	SA	A	SA	SA	SA	D	SA	SA	SA	SD	SA	SD	D	SD	D	A	A	D	A	SA	SD	SA	US	A	SD	SA	SA	A
133	D	D	SA	SA	A	SD	A	US	A	US	A	US	A	SD	US	A	SD	D	SD	A	A	US	US	D	US	US	US	A	A	A	US	US
134	D	D	D	US	US	A	A	D	A	D	D	D	A	D	A	SD	US	D	D	US	A	D	SA	SD	US	D	US	A	D	A	D	D
135	D	SD	SD	D	D	SA	D	A	A	D	D	A	A	A	D	D	D	D	D	D	D	D	A	D	D	D	A	US	US	A	D	A
136	D	SD	SA	SA	SA	SD	SA	SD	SA	SD	US	SA	A	SD	A	SD	SD	SD	D	SA	SA	A	SA	D	SA	D	D	A	A	SA	SA	SA
137	A	D	US	D	D	US	D	D	A	D	D	US	A	D	A	SA	D	D	D	A	A	US	SA	D	US	D	US	A	US	SA	SA	A
138	SA	A	A	US	A	SD	A	US	SD	US	SA	US	US	SD	SA	SA	SD	SD	SD	SA	SA	SA	SA	SD	SA	A	US	A	A	SA	A	A
139	D	D	D	D	D	A	D	US	A	D	A	US	A	D	A	A	US	SD	US	US	A	D	A	SA	D	US	SA	D	SA	A	D	D
140	A	D	A	US	US	SD	A	D	SA	US	D	US	SA	SD	A	SA	D	SD	D	US	A	D	SA	D	US	US	SA	SA	A	SA	A	SA
141	D	D	D	D	D	A	D	D	SA	D	US	D	A	D	A	SA	SD	SD	SD	A	A	D	SA	A	US	D	D	A	D	SA	US	A
142	D	SD	US	D	D	SA	SD	D	A	SD	SD	SA	A	D	A	D	SD	D	A	D	A	SA	A	US	SD	D	A	A	D	A	A	A
143	SD	D	A	US	D	D	US	US	D	US	A	A	A	D	A	A	D	D	D	A	A	A	SA	A	US	D	A	US	A	US	SA	A
144	D	A	SA	A	A	SD	SA	D	A	US	SA	SA	SA	D	A	US	US	D	US	D	D	US	SA	D	US	D	A	A	SA	SA	A	A
145	A	D	D	D	SD	A	D	SD	SA	D	A	SD	A	D	A	SA	D	D	D	D	A	A	D	D	D	SD	D	D	A	A	A	A
146	D	D	SA	SA	A	SD	SA	D	D	A	SA	US	SA	SD	SA	SA	SA	SD	SD	A	SA	SD	US	SA	SA	SD	US	SA	SA	SA	SA	SA
147	D	A	A	SA	A	A	SA	D	D	A	D	D	A	D	A	SA	SA	D	D	SA	A	A	D	A	A	D	D	D	D	A	A	A
148	D	D	A	A	D	SA	D	D	SA	D	A	SD	SA	SD	SA	SA	A	D	SD	A	SA	A	SA	D	SD	SD	SD	SA	US	SA	SA	SA
149	A	D	A	US	D	D	SA	D	SA	D	D	D	A	US	D	A	D	D	D	A	A	A	SA	SD	A	US	US	SA	D	A	US	SA
150	A	A	A	A	A	A	A	A	A	A	A	A	A	D	A	A	A	D	D	A	D	A	A	A	A	D	A	A	A	A	A	A
151	D	D	A	A	D	D	A	A	A	D	D	A	D	SA	SA	A	D	D	D	US	A	A	D	A	D	D	A	A	D	A	D	A
152	D	SA	SA	A	SA	SA	SA	SA	A	A	SA	D	SA	SD	SA	SA	D	SD	SD	SA	SA	SD	SA	SA	SA	SD	US	SA	SA	SA	SA	SA
153	A	D	SA	SA	A	SA	SA	A	A	A	A	A	SA	SD	SA	SA	SD	US	SD	A	A	A	SA	SA	A	D	A	D	SA	SA	SA	SA
154	US	D	US	US	US	SA	US	US	SA	D	SA	D	SA	SD	SA	US	US	US	SD	A	A	D	A	D	A	US	D	A	US	A	A	A
155	A	A	A	D	US	A	US	D	A	A	D	A	A	D	A	US	A	D	D	D	A	US	A	US	A	D	D	A	D	A	A	A
156	SD	SD	A	D	D	SD	SD	SD	SA	SD	SD	SA	SA	SD	A	A	SD	D	SD	SD	A	SD	A	SD	D	D	D	SA	D	A	D	A
157	A	A	A	A	A	SA	SA	SA	A	SA	SA	SA	SA	SD	A	SA	A	D	US	A	SA	A	SA	SD	US	D	D	SA	A	SA	A	A
158	D	A	A	A	A	SA	A	D	SA	US	SA	US	SA	SD	A	SA	D	D	SD	A	A	D	A	A	A	D	US	A	SA	SA	A	A
159	A	SD	D	US	D	A	D	D	A	D	US	D	SA	SD	A	A	D	SD	D	US	A	A	A	D	D	SD	SD	SA	US	US	A	A
160	A	SD	D	D	D	SA	SD	D	A	D	US	SD	A	D	SA	SA	D	D	D	A	A	SA	SA	US	US	SD	SD	A	D	US	D	SA