

Inclusion of Pupils with Intellectual Disabilities

*A Survey of Primary School Teachers' Attitudes and
Willingness in Abim District-Uganda*

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Abstract

The purpose of the current study was to investigate primary teachers' attitudes towards including pupils with intellectual disabilities in ordinary schools. In particular, their willingness to teach pupils with intellectual disabilities in the same classes with ordinary pupils was established. The survey design was used and an attitude scale adapted from Larivee and Cook (1979) was used to collect data. The sample included 130 primary teachers randomly drawn from 12 primary schools in each of the sub county and town council administrative establishments in Abim district. The study was based on the Icek Ajzen's theory of planned behaviour which was chosen due to its relevance to the understanding of attitudes and behaviour.

Descriptive statistics showed that 77.2 % of the teachers in the sample were totally untrained in the field of special needs education and most teachers taught in generally large if not overcrowded classes. Teachers' attitudes were found to be almost positive towards inclusion and they were generally very willing to teach pupils with intellectual disabilities in ordinary school classes. A Pearson's correlation coefficient showed that there was a strong and significant positive correlation between attitudes and willingness, since an increase in attitudes tended to correspond with an increase in willingness. The independent samples t-test disclosed that there was a slightly significant relation between attitudes and training level in special needs education, but there was no significant relation between attitudes and gender and teaching experience. The one way analysis of variance revealed that the attitudes of teachers varied significantly in relation to class size and practical experiences gained from teaching pupils with intellectual disabilities. In the light of the findings, it was concluded that there was a positive prospect for implementing inclusive education in Abim district since teachers' attitudes were overall almost positive. The study therefore recommended that there was a need to boost teachers' confidence and instructional competencies through organising short term training at district level in the field of special needs education in general and inclusive education particular.

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Dedication

To my dearest wife Florence Ojok, our beloved children Milly Achii, Junior Ojok and Grace Dida; and to my Grand father Favio Dida who unfortunately did not live to witness the completion of this thesis project.

LIST OF ABBREVIATIONS

AAIDD	American Association on Intellectual and Developmental Disabilities
AAMR	American Association on Mental Retardation
ABEK	Alternative Basic Education for Karamoja
ANOVA	Analysis of Variance
BTL	Break Through to Literacy Programme
DEO	District Education Officer
df	Degree of freedom
EFA	Education for All
N	Number
ORMS	Opinions Relative to Mainstreaming Scale
p	Significance level
r	Pearson's correlation coefficient
SD	Standard Deviation
SNE	Special Needs Education
SPSS	Statistical Programme for Social Sciences
T	t-test
TPB	Theory of Planned Behaviour
UN	United Nations
UNESCO	United Nations Education Scientific Cultural Organization
UNICEF	United Nations International Children's Education Fund
UNISE	Uganda National Institute of Special education
UPE	Universal Primary Education
USE	Universal Secondary Education and Training
WFP	World Food Programme

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1. INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

The study context depicts one geographical factor and a historical event that are believed to have shaped community attitudes towards formal education in Karamoja, namely the harsh environment which has forced a semi-nomadic lifestyle on the Karimojong¹, and the so called *burial* of the pen in the early 1930's. While the semi-nomadic lifestyle is thought to be incompatible with formal schooling, the burial of the pen was believed until recently, to symbolise the *death* of formal education in the area. Teachers play a pivotal role in the instructional process and therefore their attitudes were assumed to be crucial for the successful implementation of inclusive education. The study therefore focussed on primary teachers' attitudes and their willingness to include pupils with intellectual disabilities in ordinary primary schools in Abim district. Key terms are defined where they first appear but more detailed definitions of them are substantiated in the next chapter. This chapter therefore describes some relevant background information about Uganda and specifically Karamoja sub-region where the study was conducted. It also presents the research problem, research questions, purpose of the study as well as the rationale and significance of the study.

1.2 Overview of Uganda's Education System and the Road to Inclusive Education

Uganda is a land locked East African country bordered by Kenya in the east, Sudan in the north, the Democratic Republic of Congo in the west, Tanzania in the south

¹ Karimojong is the name given to a semi-nomadic pastoral tribe from Karamoja, situated in north eastern Uganda

and Rwanda in the south west (Rwabogo 1994). Abim district, the area of study, is a new district found in the conflict prone Karamoja sub-region which is located in the north-eastern part of Uganda. Abim was a part of Kotido district until July 2007 when it was separated and made a district of its own, becoming the youngest of the five districts that make up Karamoja sub-region.

Uganda's education system is both formal and Non-formal. Under the formal system, the four tier educational model is followed whereby one spends seven years in primary, four in lower secondary, two years in advanced secondary level before tertiary and/or university education that last between two to five years depending on the course. The non-formal aspect emphasises literacy and practical, hands on skills targeting young adults who may have missed out from the formal system, Functional Adult Literacy Program and Alternative Basic Education for Karamoja (ABEK) are the lead examples of the non-formal education provisions (Ministry of Finance 2002).

The government of Uganda considers education as one of the fundamental basic human rights for every citizen and this is enshrined in Article 30 of the 1995 constitution which states: 'Every person has a right to education' (Constitution of the Republic of Uganda 1995, p.29). This legal provision underpins Uganda's efforts and commitments to provide basic education to all her citizens of school going age.

As a signatory to the Jomtien Declaration on Education for All (EFA) one of the striking practical steps Uganda has taken in the attempt to deliver the right to education to her citizens was the introduction of Universal Primary Education (UPE) in 1997 and more recently Universal Secondary Education and Training (USE) in 2007. As a result of these initiatives, the national literacy average is currently up from 54% in 1991 to 69.9% and is expected to keep improving (Ministry of Finance 2002).

One important milestone in favour of children with disabilities was that when Universal Primary Education was still meant for only four children per family, the government of Uganda gave the child with disability and the girl child top priority for enrolment in school, a gesture that many believe implicitly led to the official

introduction of inclusive education in Uganda (Ministry of Education and Sports 1998). This led to a huge influx of children with different types of disabilities being enrolled in schools and this had implications in both instructional practices and teacher education. Special schools and units still exist though, and children with certain disabilities are still preferably educated in those special schools rather than inclusive schools.

The national disability prevalence rate stands at 4% with northern Uganda leading at 4.8%. Available statistics show that 63% of persons with disabilities have attained at least primary education. The situation is however different for persons with intellectual disabilities. Despite the introduction of UPE and inclusive education, 42.7% of persons with intellectual disabilities have not attained any education at all (Uganda Bureau of statistics 2002). This is a clear indication that children with intellectual disabilities constitute a sizeable proportion of the Ugandan children who are still missing out of the Universal Primary Education provision. These statistical information tend to disclose the imbalance that exist in the access to primary education against children with intellectual disabilities and therefore a genuine cause for some investigation into attitudes towards their education in ordinary schools. By attitude was meant the positive or negative feelings and beliefs of an individual towards something; in this particular study, attitude was operationalised to mean the teachers' positive or negative feelings and beliefs towards including pupils with intellectual disabilities in ordinary schools. Children with intellectual disabilities in refer to those children who are performing significantly below average in academics and are also experiencing difficulties with adapting to their school social and physical environmental demands.

1.3 The Karamoja Context

The low literacy, retention and school completion rates evident in the Karamoja districts could not be traced without a brief mention of the harsh environmental conditions the Karimojong live in and the (in) famous burial of the pen in the colonial

times. This geographical factor and historical event have differently shaped both the lifestyle of the natives and their attitudes towards school education in almost equal proportions. The impact of the unfavourable geographical factor is first described.

The Karimojong occupy a semi-arid region with low, unreliable rainfall, hot temperatures, poor vegetation cover and a generally harsh environment (The White Paper on Education Policy Review Commission 1992). Cattle rearing is the major source of livelihood here and yet the unfavourable climatic conditions such as lack of grass and water resulting from droughts do not support this very tenet of livelihood. The inhabitants have therefore inevitably adopted a semi-nomadic lifestyle in which they migrate seasonally from place to place to search for water and grass for their cattle. Internal migrations take place yearly during long dry spells of drought. Unfortunately, due to this migratory way of life, the Karimojong view formal education as incompatible with the semi nomadic lifestyle that they practise. The result is that children's right to education has to compete against parents' tendency to engage girl children in domestic chores and boys in cattle herding instead of sending them to schools.

According to the Ministry of Finance (1991) internal migrations alone accounted for about 32% of non-attendance among Karimojong schools. This might be explained by the fact that some children can be withdrawn from schools in dry seasons when parents migrate to neighbouring districts in search for water and green pasture for their cattle. Therefore, the unsettled lifestyle dictated by the harsh environment has partly made the Karimojong to attach low value to school education as they view it as irrelevant and incompatible with their migratory way of life (White paper on education on 1992). The question that remains unanswered is what are community attitudes to school education if they perceive it to be irrelevant and incompatible with their semi-nomadic lifestyle? Investigating this particular question provided the grounds for conducting this research.

1.3.1 Resurrecting the Pen: a Break-through in Attitudes to Formal Education

In the mid 1990s a pre-project study funded by Save the Children Norway documented a historical event (*burial of the pen*) that was believed to have impeded education efforts in Karamoja for decades. In the 1930s the colonial authorities attempted to recruit Jie² children into the army. They also registered cattle for taxation and vaccination using the pen. Coupled with forceful and sometimes bloody cutting off of traditional head-dresses, the locals became suspicious (Munaabi & Mutabaazi 2006). They viewed vaccination as an attempt to exterminate their cattle and resented the taking of their children to join the army since they returned either dead or sick. The forceful recruitment into the army and head count of cattle were both done using the pen. The pen was subsequently viewed as an instrument of oppression and something had to be done with it and the elders took action forthwith.

During a ceremony in which an elder offered a black ox as a sacrifice, the pen was buried and cursed. This symbolised the ‘death’ of formal education as elders instructed parents never to send children to school (Lane, Kisadha & Napeyok 1995). Elders in Karamoja were generally believed to be intermediaries between god and humans so their instructions were rarely defied. Therefore their instruction that children were not to be sent to school was almost heeded unquestionably (Munaabi & Mutabaazi 2006). It was believed that the few people who defied this order and went to school would face death in the course of their education due to the curse that was put on the pen. The curse belief in the curse of the pen persisted and for as long it prevailed, even UPE might not have made enough sense to some Karimojong to send their children to school.

In 1995 with Redd Barna’s effort, a turning point took place. A group called ‘Jie County Educational Lobby Group’ was formed to plead with the elders to ‘unearth’ or ‘resurrect’ the pen in order to open the way to education for their children.

² Jie: a clan of the Karimojong tribe who were believed to have buried and cursed the pen in the 1930s

Fortunately, the elders relented and in a ceremony held in Kotido town, the pen was resurrected on 4th & 5th November, 1995 (Lane, Kisadha & Napeyok 1995). The resurrection of the pen is widely viewed as a big break-through to the attitudes towards education which had been historically resistant. Many children started going to school since it was believed that the curse on the pen was already removed.

However, Karamoja was and is still behind educationally. Aware that formal schooling is irrelevant and incompatible with their unsettled lifestyle, government was conscious not to force formal education on the Karimojong whose attitudes to education were still fragile. Basing on the pre-project report by Redd Barna and recommendations by the White paper on education 1992, a non- formal programme called Alternative Basic Education for Karamoja (ABEK) was introduced. The programme was thought to be flexible, relevant and compatible with the Karimojong lifestyle since children can attend it at their convenience, even after returning the cattle home, unlike formal schools which requires them to spend all their time in schools. The curriculum is based around cattle keeping which is the chief economic activity and learning takes place at any time and place convenient to the learners:

‘...at the learning centres, the learning day starts very early in the morning before the boys go to herd cattle and the girls start the domestic chores. Learning also takes place in the evening, once the boys have returned the cattle to the kraals and girls have finished their domestic work’. (Omagor, Atim, Okot, Kiryahika & Eron 2002, p.12).

Although the non-formal programme was purposed to help the Karimojong to catch up with the rest of the country educationally in reality, this may take some time. It is now clear that community attitudes towards formal education in Karamoja have been historically resistant and may not have transformed much since attitudes take some time to change. Despite the symbolic removal of the curse that was put on the pen, it is not yet certain that the local peoples’ attitudes have now transformed positively. Therefore some children are probably still out of school. With the national statistics showing low enrolments and school completion rates in Karamoja and that 42.7% of

people with intellectual disabilities are out of school in the country (Ministry of Finance 2002b), it was therefore important to carry out a survey study to investigate (teachers') attitudes towards including pupils with intellectual disabilities into ordinary schools in this part of Uganda.

1.4 Rationale of the Study

The choice of the current research problem was conceived and informed by existing documented statistical information about Karamoja as well as some practical experiences of the investigator as an ordinary and special teacher. A census report by the Ministry of Finance (1991) showed that the two Karamoja districts of Moroto and Kotido, had the lowest literacy averages in the country compared to the national literacy average of 54% by 1991. Ten years later, another Census report revealed that the Karamoja literacy levels were still lowest in the country, with Nakapiripirit and Moroto districts maintaining the 12% literacy average and very minimal increase in the other districts of Kaabong and Kotido (Ministry of Finance 2006a).

In the Government White Paper on Education (1992), there is an official admission that the formal education system was not relevant and compatible to the semi-nomadic way of life of the Karimojong making them to view education negatively. In its humanitarian situation report, UNICEF unveiled a 'Break-through-to-Literacy (BTL)' program for conflict affected districts (UNICEF 2006). In Abim district, BTL was launched with the slogan 'Go to school, Back to school, Stay in school' after realising that there was an unacceptably low enrolment and attendance rates in the war affected districts including Abim. According to UNICEF (2007) the low school enrolments, retention and completion rates evident in Karamoja schools represent a basic violation of children's rights and an urgent priority for action by all involved.

Negative attitudes and unwillingness by some people to send and support children in schools are possible reasons for the low enrolments, retention and completion rates in Karamoja including Abim district. Due to persistent famine and coupled with

traditionally low expectations from education, children in Karamoja schools are still being enticed with food by the World Food Programme in order that they may go to school, stay in school and complete the necessary level of education. Special food rations are given to the girl children every Friday as an incentive for them to keep attending school:

‘...the food is really the greatest enticement for children to go to school. Food rations from World Food Programme have relieved the burden of feeding children which in a way makes education an immediate need for them’ (UN 2004, pp.1).

Using food to tame children to attend school regularly is an indication of possible low attitudes towards formal schooling in the sub-region. From the investigator’s experiences, school attendances tend to fall drastically in most schools, if food supply happen to be delayed. The investigator has also experienced times when some schools remain almost without children because parents have migrated with school-going children to another district in search of water for animals. In a place where education may not yet be a priority owing to negative attitudes, children’s right to basic education is most likely at stake. It was therefore necessary to investigate teachers’ attitudes towards including pupils with intellectual disabilities in ordinary primary schools in Abim district.

1.5 The Research Problem

For long the Karimojong have perceived formal education which is offered in fixed settings as irrelevant and incompatible with their way of life as semi-nomadic pastoralists. The situation was worsened by the so called *burial* and *curse* of the pen in the colonial times, an event that was believed to symbolise the *death* of formal education. As a result even the introduction of Universal Primary Education might not have convinced some Karimojong parents to send their children to school. This perception is assumed to prevail up to now thus raising the concern that some children including children with intellectual disabilities may not be accessing school

education. Different reports have shown that literacy, enrolment and school completion rates in Karamoja are still the lowest in the country. These conditions reveal disparities and a lack of equity in education which are challenges that should be addressed if UPE and EFA targets are to be a reality for all children including those with intellectual disabilities. Every child is entitled to quality basic education offered in a natural environment nearest to his or her home (UNESCO 1994). Therefore every nation has the responsibility to ensure basic education to all children in ordinary schools irrespective of ability or disability.

The introduction of UPE in Uganda implies that teachers are now obliged to teach both children with and without disabilities in the same classes. However, a big proportion of teachers were probably challenged by this new responsibility for which their teacher education training may not have included. It is unknown what teachers' attitudes might have been in relation to the inclusion of pupils with disabilities into ordinary schools. With studies conducted in other places suggesting that some teachers were less willing to include pupils with intellectual disabilities into ordinary schools (Wormnæs, Opdal & Habayeb 2001), it was necessary to investigate what teachers' attitudes and willingness were in Abim district. The following research problem was therefore formulated: What are primary school teachers' attitudes towards inclusion of and to what extent are they willing to teach pupils with intellectual disabilities in ordinary schools in Abim district?

1.6 Research Purpose

The chief purpose of this study was to investigate primary teachers' attitudes towards inclusion and establish whether they were willing to include pupils with intellectual disabilities in the ordinary schools.

1.7 Research Questions

To investigate the research problem and achieve the purpose of the study, the main research question investigated was: What are primary school teachers' attitudes towards inclusion of and to what extent are they willing to teach pupils with intellectual disabilities into ordinary schools in Abim district?

In order to allow in-depth investigation into the research problem, the following research sub-questions were also formulated:

- What is the relation between primary school teachers' attitudes and their willingness to include pupils with intellectual disabilities in ordinary schools?
- What is the relation of attitudes and willingness with the following teachers' background variables: gender, class size, class level taught, training level, experience in service and experience in teaching pupils with intellectual disabilities?
- Do teachers' attitudes vary in relation to the degree of intellectual disabilities?
- To what extent may attitude factors be related to willingness?

1.8 Significance of the Study

It was hoped that the statistical information, recommendations and the conclusions drawn from the findings of this study would be of some practical use to the district, prospective researchers, teachers, relevant stakeholders and indirectly, to children with intellectual disabilities who were at the centre of this study.

The findings of this study may serve to bring the need to include children with intellectual disabilities to the lime light since its results may be publicised or disseminated to different stakeholders. The statistical findings may also be used as a basis for the local government and relevant non-governmental organisations to make

important policy and planning decisions as well as lobbying for the provision of basic education and related support services to children with intellectual disabilities Abim district.

The district local government, through the district education department, might want to integrate some of the workable recommendations from this study into its annual work plan, for example including special needs education in its plan for continuous professional development for teachers.

The teachers who were the target population of this study might benefit from any positive developments that may accrue from this study in the long or short term. They may also be able to appreciate the significance of their own attitudes and how these may relate to their professional and instructional practices in general and to their responsibilities to support pupils with intellectual disabilities in ordinary schools.

To prospective researchers, this study can be a reference point for already existing literature and for determining new areas that may necessitate further research. In general, the study might contribute towards public education and attitude change.

This chapter has mainly described the background information that was thought to be necessary for understanding the contextual foundation that led to the research problem formulation. The next chapter will present the theoretical foundation and conceptual framework for the study.

2. THEORETICAL FRAMEWORK AND REVIEW OF RELATED LITERATURE

2.1 Introduction

The present study investigated the attitudes of primary school teachers and their willingness to include pupils with intellectual disabilities in the ordinary schools. This chapter presents the definitions and discussion of the key concepts as well as an overview of previous studies in relation to attitudes. The shift of terminology from mental retardation to intellectual disabilities has been briefly discussed. The chapter concludes with an illustration of the theoretical model used and how it was applied to the context of the present study.

2.2 Definitions and Discussion of Key Concepts

2.2.1 Attitudes

The concept attitude may not be so easy to define in concrete terms owing to its abstract nature. Nevertheless, some definitions of attitude have been explored. Gall, Gall and Borg (1996) defined attitude as an individual's view point or disposition towards a particular object, person or an idea. They believe that attitudes have three components namely: affective (feelings), cognitive (belief or knowledge) and behavioural (a predisposition to act in a particular way). Similarly, Eagly and Chaiken (1993) have defined attitudes as tendencies to evaluate an entity with some degree of favour or disfavour, ordinarily expressed in cognitive, affective and behavioural responses. Like many other constructs, attitudes are not directly observable but can be inferred from observable responses. Similarly Fishbein and Ajzen (1975) defined attitude as a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. According to

Fishbein and Ajzen (1975), the learned responses (attitude), serve as guides to our overt behaviour with respect to the attitude object, thus giving rise to a consistently favourable or unfavourable pattern of responses. In the present study, the attitude object was taken to be the idea or practice of including pupils with intellectual disabilities, towards which teachers expressed positive or negative feelings and beliefs.

In practice however, attitudes may or may not always translate into a readiness to teach these pupils in the ordinary classes. For this reason, the focus of this study was partly on establishing whether teachers had positive or negative feelings and beliefs about including pupils with intellectual disabilities and partly on investigating teachers' willingness (which was taken to be teachers' likely readiness to teach pupils with intellectual disabilities together with ordinary pupils in the same classes). This had implications on the construction of the instrument used for collecting data for the study. The scale that was adapted from Larivee and Cook (1979) described into more details in the next chapter, was found to mainly measure teachers' attitudes. Although this was called an attitude scale, it did not explicitly measure teachers' willingness.

In order to accommodate the aspect of willingness that was not explicitly measured in the Larivee and Cook (1979) attitude scale, a supplementary sub-scale was constructed based on the Theory of Planned Behaviour. The sub-scale measured teachers' willingness to teach pupils with intellectual disabilities in ordinary classes. It was therefore found necessary to investigate teachers' willingness (their likelihood to be ready to teach pupils with intellectual disability) separately from their attitudes (positive or negative feelings and beliefs) towards the idea/ practice of including pupils with intellectual disabilities in ordinary schools.

2.2.2 Overview of Related Studies on Teachers' Attitudes

Many studies about teachers' attitudes towards inclusion of children with special needs into ordinary schools have been undertaken in different countries. Some of the studies have used alternative terms such as mainstreaming and integration in

reference to inclusive education and have focussed on children with special needs in general. The studies cited in here were those related to the importance of teachers' attitudes to the process of implementing inclusive education and factors that might shape teachers' attitudes towards inclusion of children with special needs generally and in particular towards children with intellectual disabilities as presented next.

Importance of Teachers' Attitudes to the success of Inclusive Education

One guiding question that was central to the choice of this research problem from the outset was whether teachers' attitude was important at all to the implementation of inclusive education. Most of the studies reviewed tend to show that attitudes are important to the process of inclusion. Sarason and Doris (1979) provide a clue to this question when they suggest that the effectiveness of any program is dependent on the attitudes of the people involved in the implementation of the programme. The justification for the present study therefore greatly hinged on the assumption that the success of inclusive education for pupils with intellectual disabilities depend to some extent on the attitudes and willingness of primary teachers as key implementers. Happe (1983) explains that this is because the teachers will invest their efforts depending on how much they like the program and how they think it is going to work out. Regarding the idea of including pupils with intellectual disabilities, this implies that teachers' positive or negative attitudes may affect how committed they will be to implementing inclusive education practices.

In support of the view that teachers' attitudes are vital for successful inclusion, Semmel (1991) contends that since regular education teachers are primarily responsible for pupils with disabilities in inclusive classes, the success of the inclusive movement is largely a function of general teachers' willingness to work with the pupils with disabilities in inclusive settings. Hegarthy (1998) specifically pointed out that teachers' attitudes are significant in the success or failure of inclusion of children with special needs into ordinary schools because teachers have great influence on the children in class, on fellow teachers and on parents as well.

In further emphasis of the importance of teachers' attitudes, Dunn and Fait (1989) stated that if teachers appear apprehensive and fearful, it is likely that other students will follow their lead. Since teachers are influential public figures, it follows that their attitudes may affect the attitudes of the children whom they teach and of the parents with whom they collaborate over school children's educational matters.

Attitudes also seem to affect the delivery of services to a given group of people. Concerning people with intellectual disabilities, Ruskin in (Beirne 1994) reports that attitudes tend to correlate strongly with the amount of interaction between other people and those with intellectual disabilities. This is in agreement with the view of Wolfensberger in (Beirne 1994) that how a person is perceived affects how that person will be treated. In the case of teachers this may imply that how they perceive pupils with intellectual disabilities is likely to affect how they treat or teach them in ordinary school settings. Hence it was important to investigate teachers' attitudes since their attitudes might affect their readiness to participate in the implementation of inclusive education for pupils with intellectual disabilities.

Overviews of some recent research findings on the inclusion of pupils with intellectual disabilities however seem to report more unfavourable than favourable attitudes by teachers. A study in Palestine by Opdal, Wormnæs and Habayeb (2001) found out that none of the teachers that participated in their study mentioned students with intellectual disabilities as includable into ordinary schools. Moreover, 8% of the teachers explicitly indicated that individuals with intellectual disabilities should not be included in public schools at all. Similarly De Battencourt (1999) and Smith and Smith (2000) also found out that general teachers believed that regular schools were the best placements for children with disabilities and their attitudes were frequently ambivalent or negative. Meanwhile Schumm and Vaughn (1995) reported that general teachers complained that their pre-service training did not prepare them for the challenges of inclusive education and were therefore pessimistic. Teachers' attitudes are therefore central to any prospects of inclusive education. The next sub-

section describes studies that investigated if attitudes varied according to certain factors.

Factors Contributing to Teachers' Attitudes

Different researchers have investigated and reported many variables that contribute to shaping teachers' attitudes towards inclusive education either favourably or unfavourably. Findings on attitude relation to some of these factors are reported here. Training in the field of special needs education is one of such variables investigated to find its relation to attitudes of teachers. Conaster, Block and Lepore (2000) and Martinez (2003) found that teachers trained in special needs education had more positive attitudes than those who were untrained. Training is believed to add more knowledge and skills to teachers which in turn boosts their confidence in working with children in inclusive settings. Similar studies by Rizzo and Vispoel (1991) and Urquhart (1999) also obtained findings that support the role of adequate academic and professional preparation by institutions in shaping teachers' attitudes. Clark, French and Henderson (1986) also pointed out that most teachers were negative towards inclusion because they did not know how to teach in inclusive settings due to inadequate academic and professional preparation at university. Contrary to these findings however Hastings et al. (1996) found that teacher training had little impact on students' teachers' attitudes towards children with special educational needs.

Other studies have also investigated if attitudes varied according to their years of experience in teaching. Praisner (2003) and Batsiou et al. (2006) in their study on Greek and Cypriot teachers' attitudes towards inclusion of special needs children, found no significant relation between attitude and teachers' years of experience in teaching. On the contrary, Center and Ward (1987) found that more experienced teachers were more negative as opposed to the younger and less experienced teachers who recorded more positive attitudes (Heflin & Bullock 1990). It was possible that the more experienced teachers tended to show negative attitudes because they probably practised traditional methods that they were unwilling to drop.

Practical experience or contact with children with special needs has been found to contribute to attitudes. Ivey and Reinke (2002) report that experience had a positive relation with teachers' attitude as it helps them to understand their roles as teachers. This was supported by Janzel et al. (1995) who found that teachers that participated in inclusive programmes gained personal satisfaction from participating in inclusive practices and noticed that children with special needs could change for the better. Vianello and Moalli in (Zambelli & Bonni 2004) also emphasised the importance of direct experience with special needs children in improving teachers' attitudes. It should be cautioned however that much as practical experience may shape teachers' attitudes positively, on the other hand it may also reinforce and/or trigger off (potentially) unfavourable attitudes on the teacher, depending on the individual experiences.

Variation of attitude in relation to gender was investigated by Curtis (1985), Folsom-Meek, Groteluschen, and Krampf (1999) and Conaster, Block and Lepore (2000). They all reported more positive attitudes by female teachers towards including students with special needs. On the contrary, Batsiou et al. (2006) instead found that Greek and Cyprus male teachers were more positive than female teachers. Attempting to explain why male teachers had more positive attitudes, Villa, et al (1996) claimed that teaching in inclusive classes was a laborious and difficult task that required more time for planning and lesson preparation. Jobe, Rust and Brissie (1996) supplemented that male teachers might have been more willing to undertake the difficult task because they had greater confidence in their abilities to teach, compared to female teachers.

Findings from investigations of class size relation to attitudes are also interesting. Villa et al. (1996) found that teachers of classes containing 15 to 20 pupils expressed more positive attitudes than those in classes containing 22 to 30+ pupils. However Larivee and Cook (1979) and Cornold et al. (1998) found no variation in attitudes according to class sizes. It should be noted that the class sizes in the reported studies were generally small and this might have attributed to their non-significant findings.

Forlin, Douglas and Hattie (1996) found out that teachers' attitudes depended on the type and degree of students' disabilities. Particularly they reported that attitudes were less positive towards inclusion of students with intellectual disabilities than physical disabilities and that attitudes became less and less positive as the severity of disability increased. In a related survey about attitudes towards inclusion, Scruggs and Mastropieri (1996) also found out that teachers' willingness to include pupils with impairments was affected by the type and degree of impairment as well as the level of implicit obligations on the part of the teacher.

As already indicated previously, teachers' attitudes may be positive or negative toward inclusive education. However these attitudes could vary according to some aspects. The present study therefore found it prudent to investigate and establish first the general teachers' attitudes and willingness, and secondly to find out how their attitudes and willingness may vary according to certain factors like gender, class size, training level and experience in teaching. It was hoped that investigating teachers' attitudes and factors that contribute to their variations would be important in predicting the extent to which teachers may be willing to teach pupils with intellectual disabilities in ordinary classes.

2.2.3 Intellectual Disabilities

This study employed the authoritative definition of intellectual disabilities according to the American Association of Mental Retardation (AAMR). The association defined intellectual disabilities as a disability characterised by significant limitations both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social, and practical adaptive skills. The disability originates before the age of 18 (AAMR 2002). Adaptive behaviour in this context means the social and practical skills that people need to learn in order to function in their everyday lives. In addition to the definition of intellectual disabilities, the following assumptions have been formulated:

- Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture;
- Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor and behavioural factors;
- Within an individual, limitations often co-exist with strengths;
- An important purpose of describing limitations is to develop a profile of needed supports, and
- With appropriate personalised supports over a sustained period, the life functioning of the person with intellectual disability will generally improve (AAMR 2002).

According to the AAMR (2002), the above assumptions are parts and parcel of the definition of intellectual disabilities and should be used together if the definition should apply to the different contexts. It may be necessary to be aware that the definition and assumptions that were used in reference to the historical term mental retardation are the same ones now adopted for intellectual disabilities (Lukasson & Reeve 2001). This implies that the same population that was described using the term mental retardation is also described by the new term intellectual disabilities. The terminology change of course is yet to be accepted by many users and may take different countries, individuals or organisations some time to adopt or accept it. In the following sub section, some arguments in favour and against the shift of terminology from mental retardation to intellectual disabilities are discussed.

From Mental Retardation to Intellectual Disability: Why the Change?

Over the last two centuries, several terms have been used to refer to what has been historically called mental retardation. The past terms used before mental retardation included: idiocy, feeble mindedness, mental deficiency, mental disability, mental handicap, mental sub normality and so on (Schroeder, Gertz & Velazquez 2002).

With the passage of time however, these terms have been undergoing lots of changes.

Presently the term intellectual disability is increasingly being used by some nations and organisations to replace mental retardation. This transition in terminology is exemplified by organizations' names changes such as the American Association on Intellectual and Developmental Disabilities (AAIDD), formerly called American Association of Mental Retardation (AAMR) and International Association for the Scientific Study of Intellectual Disabilities, to mention but a few (Parmenter 2004). In order to follow the arguments about the terminology change, the following underlying questions remain to be answered substantively:

- Why is the term intellectual disability preferred to mental retardation? Will the change of term necessarily lessen the stigma associated with the old concept?
- How might the use of the term intellectual disability impact on the current definition of mental retardation?
- How might the use of the term intellectual disability affect persons diagnosed or eligible for a diagnosis of mental retardation? (AAMR 2002).

There are both supportive and contrary views to these questions. Commenting in support of the shift to intellectual disability, Turnbull et al. (2002) are of the opinion that the term intellectual and developmental disability is simply less stigmatising than mental retardation, mental deficiency, feeble mindedness, idiocy, imbecility and other terminologies that were used over the years. However they caution that even intellectual and developmental disabilities should not yet be viewed as the perfect terminology because at one point in time it may also turn out to be inadequate if not demeaning, just like mental retardation and other previous terms now appear to be so.

Some authors who support the terminology shift are also claiming that there is an emerging consensus that the term intellectual disability is preferred to mental retardation for a number of reasons. Turnbull et al. (2002) contend that intellectual disability reflects the changed construct on disability described by the AAIDD and the World Health Organization. They also claim that it aligns better with current professional practices that focus on functional behaviours and contextual factors, and

that it provides a logical basis for individualised support provision due to its socio-ecological framework. With respect to stigma, they argue that intellectual disability is a less offensive terminology than mental retardation to persons with the disability, and is more consistent with international terminology.

Luckasson and Reeve (2001) have supported the debate on the transition of terminology from another angle. They proposed that one of the important factors that need to be considered when selecting a term is that, the term should reflect an essential component of naming a group of people, which is to communicate values towards the group. Emphasising this aspect of communicating values, Luckasson and Reeve (2001) believe that mental retardation appears not to communicate respect and dignity and that instead, its use may often result in the devaluation of the people it represents.

On the other hand, some authors have challenged some of the arguments plotted to support the transition from mental retardation to intellectual disabilities. Regarding the claim that mental retardation easily attracts stigma and negative sentiments, some people are insisting that mere name change does not remove or lessen the stigma that is claimed to be associated with the term mental retardation:

‘Stigma will attach, regardless of the terminology that describes an impairing condition; simply changing the term mental retardation fails to address the stigma’ (Turnbull in Turnbull et al. 2002, p.68).

Furthermore, some advocate groups have also expressed concerns about the implications of terminology shift on the social welfare and entitlements of people currently described or diagnosed with mental retardation. They argue that the removal of the name mental retardation will make people with mental retardation to lose their rights, entitlements, insurances and supplementary security income which were already enshrined in the laws and policies of different nations and organisations (Marchand in Turnbull et al. 2002). This argument is plausible if one considers that removing the term may make people with mental retardation to lose their identity as

groups and individuals, and subsequently lose the rights that were accorded to them as individuals and groups of people identified with the term mental retardation.

In the face of the contemporary debates about the shift from mental retardation to intellectual disability or intellectual and developmental disability, it may be timely to point out that terms and their definitions serve a purpose and therefore their change bear both legal and moral consequences for the people they describe. Many nations may have also already enshrined mental retardation into their policy and legal documents, and all these need to be considered in the change process. It is also possible that some people with mental retardation have or have no problem with being called people with mental retardation. One way forward could be to appreciate that irrespective of the term used, society has the obligation to value every human being because the person and not the term, is more important. It is however equally important to avoid such terms that tend to devalue a group of people. Since it was not within the scope of this study to judge which of the terms is most suitable or correct it is left at the readers' discretion to internalise and decide according to their contexts.

Which Term in this Study?

The term intellectual disability is still being used synonymously with terms such as mental retardation, developmental disability and more recently, intellectual and developmental disability (AAMR 2002). Despite these terms being used to refer to or mean the same thing by the different users, it was still found important in this study, to select and use only one term so as to ensure clarity, consistency and minimise confusing the reader. Since this study focused on investigating teachers' attitudes in relation to the inclusion of children with intellectual disabilities the term intellectual disability was used because it was found to be more specific and relevant to the context of this study. The choice of intellectual disability was done in consideration of the context of the present study and does not necessarily reflect a bias against the other terms. Intellectual disability is therefore used as an alternative term with the same meaning as mental retardation, developmental disability and intellectual and developmental disability. The reader may use the term applicable to his/her context.

2.2.4 Inclusive Education

Inclusive education may be viewed in general terms as a continuous process of breaking down barriers to learning and participation for all children and young people. The Centre for Studies on Inclusive Education (CSIE) has defined inclusive education as a process where all children and young people with and without disabilities or difficulties learn together in ordinary pre-schools, schools, colleges and universities with appropriate network of supports. It therefore means enabling all students to participate fully in the life and work of mainstream settings, whatever their needs (CSIE 2002). Meanwhile Beirne (1994) described full inclusion as the full time placement of all students, including those with disabilities, in the regular education school systems to the extent appropriate to their needs. Some people however think that full inclusion may not yet be possible and that inclusive education should no longer be restricted to pupils with special needs only or just to their placement in the mainstream classrooms.

Authors who argue that inclusion should embrace and focus on all groups of children propose that inclusive education should be viewed as a process in which schools, communities and governments strive to reduce barriers to participation in learning for all citizens (Booth & Ainscow 1998). This broader view of inclusion emphasises equal opportunities for all pupils including pupils with special educational needs, gifted and talented pupils, minority ethnic groups, children with specific health needs, teenage mothers and pregnant pupils and any such pupils at the risk of exclusion.

In Uganda, inclusive education is viewed as a process of addressing the learners' needs within the mainstream schools using all available resources (UNISE 2002). This definition also emphasises quality, access, and opportunity for pupils with special needs to have education in ones' natural environment. In the present study, Inclusion of pupils with intellectual disabilities was therefore taken to mean the process of teaching pupils with intellectual disabilities and ordinary pupils together, as well as increasing their participation in the co-curricular (out of class) activities of ordinary schools. Increasing the participation of all pupils and ensuring quality and access to

education for every child is consistent with many national and international laws and might require necessary changes in the schools systems and other aspects.

Justification for the Inclusion of Pupils with Intellectual Disabilities

As previously stated, some research reports indicate that there still exist some unfavourable views regarding the inclusion of pupils with special needs, particularly pupils with intellectual disabilities. These disparities exist despite the fact that a number of national and international policies and legislative frameworks as well as research findings support the need for the education of all children in ordinary instead of special schools. Article 24 of the UN Convention on the Rights of Persons with Disabilities (United Nations 2006) clearly establishes inclusive settings as the first choice for education for all children. It reiterates the rights of children with disabilities to education, but more explicitly sets the goal of full inclusion in the regular education system.

The inclusion of pupils with special educational needs implies that ordinary schools face the responsibility to make necessary adjustments to accommodate the needs and interest of all learners. According to the Salamanca Statement inclusive schools must recognise and respond to the diverse needs of students, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricula, organisational arrangements, teaching strategies, resource use and partnerships with their communities (UNESCO 1994). Inclusion is therefore a complex process which goes beyond mere placement of pupils with intellectual disabilities in schools. It is founded upon basic, fundamental rights and principles.

According to Rustemier (2002) some of the fundamental principles upon which the inclusion of individuals in mainstream societies should be based include but are not limited to the following: every human being is able to feel and think; all human beings need each other; real education can only happen in the context of real relationships; all people need support and friendship from people of their own age;

progress for all learners is achieved by building on things people can do rather than what they can not do and diversity brings strengths to all living systems.

Similarly, Brown in (Berine 1994) has advanced more philosophical arguments in support of inclusion. He justified inclusion on the grounds that since students with disabilities are to live in the community as adults, they need to learn to interact with peers who are not disabled as they grow up; because people who are not disabled eventually encounter people who are disabled, they too must be prepared during their formative school years. He therefore emphasised that the only way to breakdown prejudice and stereotypes and promote more positive attitudes towards persons with disabilities is to provide longitudinal opportunities for citizens without disabilities to get to know their peers with disabilities. The opportunities for early social interaction that eventually lead to mainstream inclusion in society can therefore be realised through inclusive education that begins from schools, home and the wider society.

Inclusive education is also justified by some research findings which indicate that inclusion is beneficial for pupils' school achievement and social growth. Binker and Thorpe (1984) reported that pupils with severe disabilities who are included have greater academic progress than segregated pupils. Similarly, other studies have also revealed that the academic achievements of ordinary pupils do not necessarily decline as a result of inclusion (Jenkins, Speltz & Odom 1998). Regarding attitudes towards their inclusion, Certo, Haring and York (1984) found that attitude towards and perception of persons with disabilities improves through inclusion. They also found that pupils with disabilities show gains in communication, social skills, and recreation as a result of interactions with peers without disabilities in inclusive settings.

These findings may as well serve to clarify some perceptions that tend to associate inclusive education with a drop in the quality of academic performance of schools. The findings are also important for the current study since they demonstrate and reinforce the notion that through including pupils with disabilities, negative attitudes and perceptions towards them can be improved.

In Uganda, inclusive education co-exists with special schools and units. This may appear contradictory if some people interpret it to mean that inclusion is only for some learners with disabilities while some may continue to attend special schools. However inclusive education may not necessarily mean closing down special schools and units. Kristensen et al (2006) remarked that full inclusion for all pupils with disabilities in Uganda may not yet be possible for some time due to resource constraints, the severity of some disabilities, insufficient number of teachers trained in special needs education and high teacher- pupil ratio. A study conducted to assess the operational conditions of the fifteen special schools in Uganda disclosed that most of them were seriously mal-functional and parents were said to be taking children there without visiting or collecting them for holidays. In addition, most children were found to be accidentally admitted without proper assessments (Kristensen et al. 2006). The practical conditions in Uganda therefore call for inclusive education since even the few existing special schools are found to be mal-functioning, let alone the fact that they are very few in the country and not equitably distributed.

Nevertheless, Uganda has moved some commendable strides towards implementing inclusive education which may be worth mentioning. The introduction of UPE in 1997 indirectly marked the official start of inclusive education since children with disabilities were given affirmative action to be enrolled in ordinary primary schools (Ministry of Education & Sports 1998). Following the UPE landmark declaration, the only institution that trains teachers in special needs education in Uganda at the time, revised its curriculum and changed from offering a specialised to a general diploma course in special needs education This was to equip the upgrading teachers with the basic knowledge and skills to meet the needs of pupils with different disabilities in inclusive schools (UNISE 2002). Currently special needs education is officially included in the curriculum of primary teachers' colleges and government has recruited some special teachers to teach Special Needs Education in the colleges. Since pupils with disabilities are already guaranteed access to ordinary schools at least by law, it remains to be seen whether the necessary adaptations are made in attitudes and curricular practices to increase the participation of all pupils in the

ordinary schools. The challenge is now to move from legislation towards the practice of inclusion.

2.3 The Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) was formed by Icek Ajzen. The theory states that an individual's intention to perform the behaviour in question is determined by considering three factors namely: attitude toward the behaviour, subjective norms and perceived behavioural control (Ajzen 1988).

Attitude toward the behaviour is defined as the individual's positive or negative feelings about performing a particular behaviour. It can be determined by finding out one's evaluation of the consequences arising from performing the behaviour and of the desirability of these consequences. Subjective Norm (also called normative beliefs), refers to the individuals' perception of whether people important to them think that the behaviour should be performed. Perceived Behavioural control (control beliefs), is one's perception of the difficulty or ease with which the behaviour can be performed (Ajzen 2005).

According to this theory, if we wish to tell whether a person is likely to perform a given behaviour we consider: whether the person is in favour of doing it or not (behavioural attitude), how much the person feels the social support from significant others to do it (subjective norm) and whether the person feels that s/he is capable of performing the given behaviour (perceived behavioural control). In a normal situation therefore, a combination of these three factors should lead an individual to the formation of an intention to perform or not perform a given behaviour. As a rule, Ajzen (2005, pp.133) postulated that:

'The more favourable the attitude and the subjective norm with respect to behaviour and the greater the perceived behavioural control; the stronger should be a person's intention to perform the behaviour under consideration'.

Figure 1 illustrates how a combination of the three factors interplays and may lead to the formation of intention that in turn lead to the possibility to perform or not to perform a given behaviour.

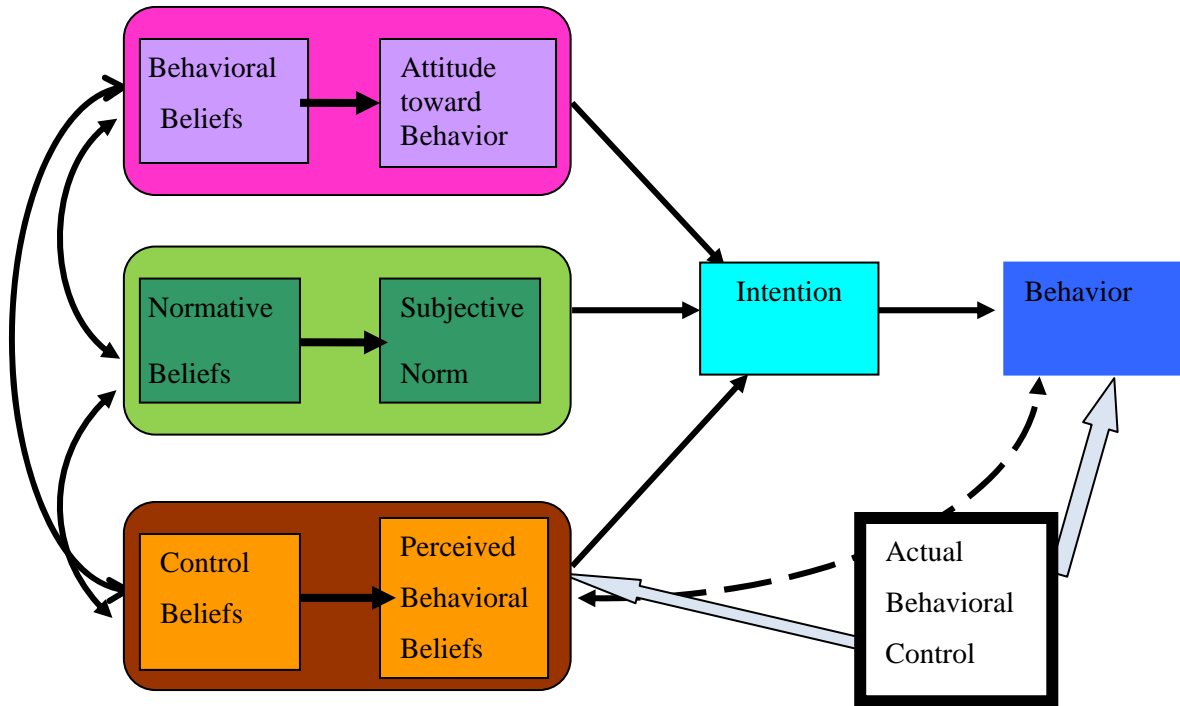


Figure 1: Theory of Planned Behaviour

However, Ajzen (2005) cautions that the theory of planned behaviour does not deal directly with the amount of control a person actually has on a given situation; rather, it considers the possible effect of perceived behavioural control on the achievement of behavioural goals. Whereas intentions reflect primarily an individual's willingness to try to produce a given behaviour, perceived behavioural control is likely to take into account some of the realistic, practical constraints that may promote or hinder the person from performing the behaviour in question. Thus one may be willing to perform a given behaviour but in practice, the willingness can be promoted or hindered by what Ajzen (2005) described as actual behavioural control (Figure 1). Actual behaviour control may be factors in the person's environment which can hinder or promote the person's willingness to perform a given conduct. Some of these factors may be beyond the person's control and may therefore stop him from

performing the behaviour. If the individual has some control over the actual behaviour control then he is more likely to perform the behaviour in question.

2.3.1 Relating the Theory of Planned Behaviour to Teachers' Attitudes and Willingness

One of the focuses of this study was to investigate the extent to which teachers' attitudes were related to their willingness to teach children with intellectual disabilities in ordinary classrooms. Fishbein and Ajzen (1975) claimed that attitudes affect intentions which in turn affect behaviour. Basing on this theory, including pupils with intellectual disabilities into ordinary schools can be taken as the behaviour in question and their willingness as their intentions to implement inclusive education. According to this theory, in order to predict if teachers are likely to be willing to include pupils with intellectual disabilities in ordinary schools we can consider the following three factors outlined in the theory of planned behaviour:

Attitude toward the behaviour represents teachers' favourable or unfavourable feelings and beliefs towards the behaviour in question. In this case, the behaviour in question is including pupils with intellectual disabilities into ordinary schools. Therefore attitude towards behaviour represented teachers' positive or negative feelings and beliefs towards inclusion of pupils with intellectual disabilities.

Subjective norm could represent teachers' perception of what other stakeholders like parents, peers or fellow teachers say or feel about teaching pupils with intellectual disabilities in ordinary schools. According to the theory, if teachers feel that other stakeholders support the idea of including pupils with intellectual disabilities in ordinary schools they are likely to be willing to perform the behaviour.

Perceived behavioural control- was taken to be teachers' perceptions of their own ability to cope with the task of teaching pupils with intellectual disabilities in ordinary schools. All the three factors combined should help us to tell whether the teachers would be willing to include pupils with intellectual disabilities or not. By considering the three factors of TPB, the following assumption was formulated for

this study: the greater the teachers' perception that they can teach in inclusive classes and the more favourable their attitudes and the opinion of significant others, the greater should be their willingness to perform include pupils with intellectual disabilities in ordinary classes.

This assumption can be explained as follows: if teachers hold favourable attitudes towards including pupils with intellectual disabilities in ordinary schools, and they feel assured of necessary support from the significant others, and the teachers themselves believe that teaching children with intellectual disabilities in ordinary schools is a task they can manage, then they are likely to accept to teach these children in ordinary schools and the reverse is also true. However, teachers' willingness to practice inclusive education question may be promoted or hindered by certain factors that may be within or beyond their control. The influence of those factors (actual behavioural control) determines whether teachers will or will not practice inclusive education.

Besides providing a theoretical foundation for understanding and illustrating the relation of attitude and willingness in the current study, the Theory of Planned Behaviour was also applied at some key stages of the research process. During construction of the instrument, it was used as a basis to construct a supplementary sub-scale that was used to measure willingness that was not explicitly measured by the main attitude scale. The assumption based on the same theory was also used in the analysis process to investigate the attitude-willingness correlation and later to discuss the relevant findings in the discussion chapter.

In the next chapter, details of the general strategies employed to investigate the research questions and strengthen validity and reliability of the study are presented.

3. METHODOLOGY

3.1 Introduction

This chapter describes the different procedures followed and the methods that were used to investigate the research questions. It explains the research design, population and sample, sampling procedure and the instrument used to collect data. In addition, considerations that were taken to strengthen the validity of the study and reliability of the instrument are described. Some field challenges encountered that may have affected the research process and how they were overcome are also reported. The main research question investigated was: what are primary school teachers' attitudes towards inclusion of and to what extent are they willing to include pupils with intellectual disabilities in ordinary schools? Other research sub-questions investigated are stated in the introductory chapter.

3.2 Research Design

This study used the survey design to investigate the research problem. Survey was defined as a data collection method where questionnaires or interviews are administered to collect data from a sample that has been selected to represent a population to which the findings will be generalised (Gall, Gall & Borg 2007). The primary interest of this study was to be able to obtain an overview result that could be generalised to the wider population of teachers in Abim district. In addition, data for this research was obtained from a fairly large sample of teachers who were spread across a relatively large geographical area. Therefore the survey design was found suitable because it permitted the collection of data from the all district at a relatively low cost and within the timeframe for the study. In addition, it was possible to use random sampling procedures in survey, which is one of the preconditions for later generalisation of findings (Gall, Gall & Borg 2007). Owing to the nature of survey

studies however, it is acknowledged that certain issues could not be followed into greater depth in this study and therefore findings might not be in-depth. This was expected considering that the focus was more in obtaining an overview result, than in getting an in-depth understanding of the research problem.

3.3 Instrument

Data for survey research may be collected using different instruments. In this study, the questionnaire was used. De Vaus (1996) defines questionnaire as a highly structured data collection technique whereby each respondent is asked much the same set of questions. The choice of questionnaire instrument was based on its strength in allowing anonymity and privacy of respondents to be guaranteed since no names were written on them. By using questionnaires, it was also possible to collect data from a larger sample size drawn from different parts of the district at a relatively low cost.

Through searching available literature, a relevant instrument was identified and adapted for use in the present study. The instrument was called Opinions Relative to Mainstreaming scale (ORMS). It was an attitude scale constructed by Larrivee and Cook (1979) and was used in their study on teachers' attitudes towards mainstreaming special needs students. The original ORMS is a 30 items questionnaire that comprised two sections: section A concerned background variables such as gender, grade level taught, number of pupils in class, number of pupils in school, location of school, degree of success with pupils with special needs and the level of administrative support. Section B consisted of 30 closed ended questions that measured teachers' opinions on a variety of items.

Larrive and Cook (1979) reported that the 30 questions were based on five dimensions or factors, namely: general philosophy towards inclusion, behaviour of special needs students, perceived ability to teach special needs students, classroom management and academic and social growth of special needs students. It was not

clear from the article viewed, how many or which items constituted each factor. 12 of the items were stated in negative form and 18 were positive statements. Items were arranged to control for any bias. Participants indicated their responses on a five point Likert scale namely: 1. Strongly agree, 2. Agree, 3. Undecided, 4. Disagree and 5. Strongly disagree.

The original instrument was not used as it was; so some aspects of it were identified for necessary adjustments in order to make it relevant to the context of Abim district. Although the ORMS was used in a different country, it was found largely adaptable. Firstly the scale was used in a study with a similar topic to the current research problem under investigation; further more the scale did not have a particular country bias and since it was already designed in English there was no need for translation.

The following adjustments were therefore made on the instrument without significantly altering the original meanings of items on the scale:

- Some items on background variables were either removed or renamed. Level of administrative support and school location were completely removed. New items added to the background variables included training level in special needs education, teaching experience, experience with teaching pupils with intellectual disabilities, and number of pupils with intellectual disabilities in one's class (Appendix 1). These were missing in the original attitude scale.
- The term 'mainstreaming' and 'integration' were changed to inclusion with the assumption that they were used synonymously to mean the same thing.
- The word 'normal' classroom was changed to ordinary classroom,
- 'Students' was replaced with pupils because in Uganda the word student is commonly used in reference to those who are studying at secondary, college or university levels. Primary school children are called pupils.
- 'Special needs children' was changed to pupils with intellectual disabilities.

- The five point Likert scale was reduced to four by removing ‘Undecided’. ‘Undecided’ was removed because it would not be easy to specifically interpret whether it meant a positive or negative attitude. It was also anticipated that some respondents would be lured into merely ticking out ‘undecided’ whenever they found items that needed some analytical reflection before answering.

3.3.1 Constructing the Willingness Sub-Scale

In addition to the attitude scale, a sub scale was constructed to measure teachers’ willingness to include pupils with intellectual disabilities in ordinary schools because this aspect was not explicitly included in the ORMS. The willingness sub scale comprised ten closed ended questions which were designed based on the theory of planned behaviour. The questions were built on three dimensions thought to affect teachers’ willingness, these were: self-determination to teach pupils with intellectual disabilities (Qns 31, 32, 33 & 34), concern for support from significant others (Qns 35, 36 & 37) and teachers’ perceived ability to teach pupils with intellectual disabilities in ordinary classes (Qns 38, 39 & 40). Responses to the willingness sub scale were also on a four point Likert scale namely: 1.strongly disagree, 2. Disagree, 3. Agree and 4. Strongly agree. The items were all stated in the positive form and were arranged such that high scores meant willingness and low scores unwillingness. The need to construct a willingness sub scale was highlighted in the previous chapter and was based on the theoretical assumption that was derived from the Theory of Planned Behaviour as described in the previous chapter.

3.4 Population

The target population of this study were all the primary school teachers of Abim district. There were over four hundred teachers altogether from the 32 primary schools in Abim district. Primary school teachers were chosen as the target population because it is their professional responsibility to teach all pupils in ordinary

schools irrespective of their abilities or disabilities. Due to their pivotal responsibility in the instructional process, the teachers' attitudes were assumed to be important for the successful implementation of inclusive education of pupils with intellectual disabilities in ordinary primary schools and were therefore the subject of investigation.

3.5 The Sample

Abim district had 32 primary schools and a primary teachers' population of slightly over 400. It was practically not possible to reach out to all the 400 teachers, so a sample that was representative of the entire teachers' population in the district had to be selected. A total of 130 primary school teachers participated in this survey, representing about 30% of all the teachers in the district. The teachers were drawn from twelve schools, two per Sub County and two from the town council.

Considering the time frame and scope of this survey, two schools per Sub County were thought to be manageable. Though some sub-counties had slightly bigger numbers of schools and some sampled schools had slightly higher number of teachers than others, the final sample was considered fairly representative in that the sampled schools were randomly drawn from all the five sub counties and the town council, and schools had an equal chance of being selected to participate in the survey since random sampling was employed. The step by step procedures followed to obtain the sample for the survey are described next.

3.6 Sampling Procedure

The schools and teachers that participated in this survey were sampled through multistage cluster sampling procedure. This procedure involved clustering of schools and going through several other stages or steps before obtaining the final sample (De Vaus 2002). The following steps were followed at the sampling process:

Step 1: The already existing groupings of schools according to sub-county/town council administrative establishments were found convenient enough and adopted as clusters of schools without fresh clustering. In order to ensure representation from all parts of the district, each sub-county and the town council was therefore taken as independent clusters. This gave a total of six clusters of schools in Abim district.

Step 2: A sampling frame (or list) of all the schools in every cluster was drawn. The up to date list of schools per sub-county and the town council was obtained from the District Education Office.

Step 3: Clusters and schools under them were coded: clusters were coded with letters a, b, c, d, e and f; each letter represented a specific cluster name (Figure 2). Schools were given numerical figures 1, 2, 3, 4, 5 ... depending on the number of schools in every cluster. A particular school name was attached to each numeral. Coding was done to facilitate later identification of schools that were sampled in every cluster. The cluster codes were labelled on small boxes and school codes on small ballot-like papers which were kept in the respective cluster boxes.

Step 4: To sample two schools per cluster, two ballot-like papers (on which each school codes were written) were randomly picked from each of the cluster boxes, one at a time, for all the six clusters. The school codes were used to identify which school per cluster was sampled. Eventually, 12 schools were randomly sampled, two from each of the sub-county and town council.

Step 5: A census survey was conducted in each of the finally sampled schools. This meant that all the teachers in the sampled schools participated in the survey. Therefore the final sample consisted of 130 primary school teachers randomly drawn from 12 schools. Figure 2 below illustrates the sampling process.

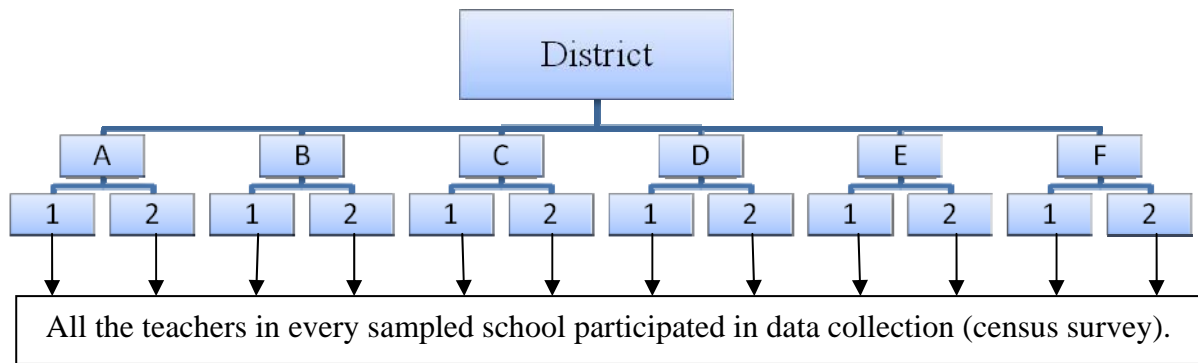


Figure 2: Sampling Procedure

3.7 The Pilot study

The Pilot study was conducted with teachers from a primary school in a neighbouring district. Since sampling of schools was randomly done, piloting was conducted in a neighbouring district to avoid the possibility of a school that had already participated in the pilot study getting a chance of taking part in the actual study. The district in which the pilot was done is the original district from which Abim district was divided, so the teachers' characteristics were largely similar. Piloting helped to pre-test the instrument and strengthen its reliability for actual data collection.

Some practical experiences were also gained and lessons from it were improved upon before the main study. After the pilot study, some changes were made on some items that respondents had indicated they needed further clarification on. From the background variables, class level appeared ambiguous to some teachers who were teaching in all the three suggested class levels (lower, middle and upper primary). Some participants also indicated that the concept developmental disability was not easily understood by them. In order to clarify these items, the following steps were taken.

- Regarding class level, participants were orally instructed to tick only one option, preferably the class level they would prefer most, in case they were teaching in all the three suggested class levels.

- The concept developmental disability was changed to intellectual disability; the definition of intellectual disability was then orally explained at the beginning of every session since the questionnaires were group administered.

It also emerged from the pilot study that the head teacher expected questionnaires that were different from those completed by ordinary teachers and this was also noticed in some schools during actual data collection. However nothing could be done about this since teachers' positions of responsibility was not considered in the study.

3.8 Procedure of Data Collection

After the research proposal was approved and the instrument adapted, an introductory letter was got from the department of Special Needs Education, Oslo University, Norway (Appendix 2). In Uganda at district level, a letter of introduction to the participating schools was got from the District Education Officer Abim (Appendix 3). Upon completing the sampling process, a pre-visit was then paid to each of the sampled schools to make appointments with school authorities and teachers. The appointments were made such that it was possible to meet all teachers as a group in one place at the same time since the instrument was to be group administered. During the pre-visit, the investigator took a letter to each school (Appendix 4) detailing the purpose of the study, how to fill the questionnaire, how schools were sampled and how results would be used, etc. On the appointed day for each school, the questionnaires were group administered. At the beginning of every session, all teachers were given letters of informed consent (Appendix 5) to sign if they accepted to participate in the study. They were dully informed that their participation was voluntary and were free to abstain or even withdraw from the study if they felt so. In addition, they were to write neither their own names nor school names on the questionnaire as a way of ensuring anonymity.

Three field conditions justified the decision to group administer the questionnaires: first was the need to orally clarify concepts that were found from the pilot study not

to be clear to participants. Certain practical conditions like the absence of reliable postal services and the floods that rendered most schools unreachable or hard to reach by road also compelled the investigator to group administer the questionnaires.

Group administration was able to yield a very high response rate (98%) since filled questionnaires were returned on the same day. However there were cases of teacher absenteeism from some few schools. Where at least more than three teachers were absent in a school, effort was made to leave their questionnaire with the head teacher who was given important instructions to guide the teachers. Filled questionnaires were later collected from the head teacher upon confirmation on phone that they were completed. Three of the questionnaires that were left behind for absentee teachers were not received back, thus giving a response rate of 98%. After completion of data collection, an appreciation letter was written and sent to participating schools to thank them for their cooperation in the study (Appendix 6).

3.9 Treatment of Data for Statistical Analyses

Since data for this survey was purely quantitative, it had to be prepared for statistical analyses using the Statistical Package for Social Sciences (SPSS) version 14.0 and this involved a number of statistical operations. Each questionnaire was numbered 1 to 130 to allow for later cross checking in case of entry errors. A data base was then carefully created using the SPSS programme with all variables labelled and given defined values. Variables were sorted in ascending order and checked for systems missing.

In order that high scores always meant a positive attitude and low scores a negative attitude, some of the items were switched and coded in the reverse order. The reversed items included 10, 13, 15, 17, 19, 23, 25, 17, 30, 35, 37 and 39. All the 10 items in the willingness sub scale were also reversed. To check the internal consistency of the items in the scale, a reliability test was done for both the attitude and willingness scale. During reliability analysis, 7 items from the attitude scale and

2 from the willingness sub scale had low Cronbach' alpha scores and were removed. The Cronbach's alpha reliability coefficients were .744 and .732 for the attitude scale and willingness sub scale respectively (Appendix 8 & 9). The reliability of .744 and .732 were found to be acceptable since a reliability of .700 is adequate (De Vaus 1996). Three of the items in the background variables (teaching experience, training level in special needs education and class size) were recorded and assigned new values for further analysis. A scale was then constructed for both attitude and willingness. After this, further analyses were done for some background variables and other factors that may have a relation to attitudes, as described in the next chapter into more details.

3.10 Ethical considerations

Ethics in research refer to considerations taken to protect and respect the rights and well fare of participants and other parties associated with the activity (Reynolds, 1982). The rights of respondents and other parties involved at every stage of this study were particularly treated with utmost care. The following considerations were made to promote and/or protect the rights and interests of participants at the different stages of the study.

At the planning stage: the attitude scale that was adapted for the study was dully acknowledged and any changes made to it were explained, so that it did not appear as if it were self-constructed by the investigator. In this way the effort of the designers was dully recognised. As a procedure to gain access to schools, written permission was obtained from the District Education Officer Abim (Appendix 3), after a formal application for it. In addition to the permission letter from the district education office, another letter was written to the schools requesting for permission from the head teachers (Appendix 4). This served to give due respect to the different administrative authorities without any relevant office by-passed. It also helped to secure preliminary rapport which was later very useful during the actual study.

During Data collection: steps taken to protect the rights of participants during actual data collection included securing informed written consent (Appendix 5) from participants and notifying them of their right to participate voluntarily or withdraw from the study at any stage if they reasonably deemed so. Anonymity and privacy of participants was guaranteed by asking them not to write their names and schools names in both the questionnaires and letters of informed consent. To try to make participants informed before signing the letters of informed consent, the purpose of the study including how findings would be reported and/or used after the study were explained both orally before every session and also in the advanced letters to schools. Participants were verbally assured that there would be utmost confidentiality in the handling of any data or information obtained from them.

During analysis and reporting of findings, the investigator made sure to report modestly and exactly what the findings were, without exaggerations that would create false impressions. In the same respect, the data base was created honestly using the SPSS programme without any distortions that would yield ‘deceitful’ findings (De Vaus 2002). After the study and in case resources allow, thesis report may be availed to some schools that expressed interest so that they read the thesis report themselves.

3.11 Validity Considerations

The main validity considerations for this study were on how to make the study findings statistically generalisable beyond the sample (external validity) and whether the instrument used really measured the key concepts (attitudes and willingness) that it was intended to measure (construct validity) (Bryman 1994).

3.11.1 Strengthening Validity

To try to strengthen external validity, attention was paid to the sampling procedure and the extent to which the final sample was representative of the teachers’ population in the district. Participating schools were therefore randomly sampled

using multi-stage cluster sampling procedure with all the five sub counties and the town council represented. This meant that schools within a sub county had an equal chance of participating in the study. The final sample was thus considered representative of the general teachers' population in that all sub-counties were represented by two randomly sampled schools. The variation in the number of schools for some sub-counties was considered not significant enough to threaten the over all representativeness of the final sample.

The pilot study was done with teachers that had similar characteristics as the teachers in the final sample. It was hoped this would allow possible generalisation of findings.

In order to strengthen construct validity, attempts were made to give clear operational definitions of the key concepts. For example during group administration of the instrument, the term intellectual disabilities and other concepts thought not to be obvious to some participants were orally clarified at the beginning of every group session. During adaptation of the original attitude scale, some changes were also made to make certain concepts relevant to the context in which the instrument was applied. The word 'students' for example was changed to pupils, 'mainstreaming' changed to inclusion, 'special needs children' changed to pupils with intellectual disabilities and 'regular' school changed to ordinary school. The changes in those concepts were made considering how best those words could be understood in the Ugandan context so that teachers might not have misunderstood them.

To control for possible response bias on the part of participants, some items on the instrument were arranged in the reverse order such that a particular responses pattern could not be obtained by some participants ticking out without reflecting on them first.

3.11.2 Threats to Validity

The validity of a study may be affected by several factors. Bordens and Abbott (2005) suggest that methodological flaws, poor conceptualization, and unclear

questions can all contribute to lowered levels of validity. Despite making attempts to strengthen validity at the different stages of the study, some threats were still anticipated owing to individual differences among participants and possible methodological flaws on the part of the investigator. For example even though some concepts were orally explained during group sessions, it could not be guaranteed that all respondents grasped their meanings clearly and this might have affected their responses. In addition, in case there were any sampling errors made by the investigator at the sampling process, it may have affected the extent to which the final sample was representative of the target population of teachers in the district, and thereby affecting external validity. The above threats were fore seen and steps were taken at relevant stages of the study to minimise their effect on the actual study in as far as it was possible.

3.12 Reliability of the Attitude Scale

Bryman (2004) refers to reliability as the consistency and repeatability of a measure, that is to say, a measure is considered reliable if it gives us the same results over and over again assuming that what we are measuring is not changing. As described before, the ORMS was adapted for the study. The ORMS has been used in previous studies in different parts of the world and was found to be reliable. Hayes and Gunn (in Bryman 2004) investigated and reported evidence of the reliability of the ORMS and recommended its use for similar studies. Larrivee and Cook (1982) also reported a split half reliability coefficient of 0.92 of the same scale meanwhile Engh (2003) found a cronbach's alpha reliability coefficient of .085.

For this particular study, the reliability of the adapted scale was determined through a reliability analysis which was done using the SPSS programme. A Cronbach's alpha reliability coefficient of .744 was obtained (Appendix 8). De Vaus (1996) remarks that reliability in research can only be a matter of degree since it is not possible to get a perfect score. So a reliability coefficient of .744 was found acceptable for the present study.

A reliability analysis was also run for the self-constructed sub scale on willingness. A Cronbach's alpha of .732 was obtained. Two of the 10 items (36 & 49) were also left out from further analysis in order to increase the reliability of the remaining items. To strengthen content reliability of the instrument, the Cronbach's alpha reliability coefficient was used as measure to ensure the internal consistency of the items on the attitude scale and willingness sub-scale. 7 items from the attitude scale and 2 from the willingness scale with very weak alpha coefficients were removed and avoided from further analysis.

3.13 Field Challenges and How they were Overcome

This being a district wide survey covering a relatively wide geographical area, there were some practical challenges met that otherwise paid impact on the study. Due to excess rain in the country last year, most areas were seriously flooded. The study area was one of the worst affected areas, with most parts cut off from the rest of the country. Certain schools were rendered impassable and very difficult to access by road. Consequently, transportation to most sampled schools was not only very difficult but almost thrice more expensive than usual. Insecurity in the study area is a long standing problem for decades. Travels to the rather insecure (rural) parts of the district can be life threatening. In addition, the study area was very distant from the city centre and other major towns where internet and other facilities could be accessed. The lack of electricity in the area also made it rather difficult to use the computer and other electronics during data collection.

Despite all these challenges however, the data collection process was overall successful since some of the challenges were overcome. To gain access to better internet and other services, the investigator made several travels to the capital city or neighbouring towns. As a safeguard to security risks, places that were known to be rather insecure were accessed by hiring the services of military escorts. This was done for only two schools in one of the sub-counties. Useful rapport was also built with the only non governmental organisation that had some internet provisions.

Occasionally the investigator was given access to some district offices when there was some work to do on computer.

4. PRESENTATION AND ANALYSIS OF RESULTS

4.1 Introduction

The main research question investigated in this study was: what are primary school teachers' attitudes towards the inclusion of and to what extent are they willing to include pupils with intellectual disabilities in ordinary schools? Specific sub questions were also formulated to allow in-depth investigation of the research problem. Both descriptive and inferential statistics were used to describe and investigate the relation among variables. The choices of the different statistical tests used depended on the type of scales and response options they provided as explained briefly here.

The correlations between variables on an interval scale and nominally distributed were investigated using Pearson's correlations; meanwhile the variation of attitude according to degree of intellectual disability was investigated using spearman rho correlation coefficient because both were on ordinal scales. The t-test was used to investigate the relation between attitude and some background variables that had dichotomous response categories. The one way Analysis of variance (ANOVA) was used to investigate the relation between attitude and some variables with more than two response options.

The findings were presented and analysed according to the research questions with brief comments on them in this chapter. More detailed comments and discussions of findings are done in the subsequent chapter. It was found necessary to describe the demographic characteristics of participants since this is part of results. Frequency tables were used to describe the demographic characteristics of participants.

4.2 Demographic Characteristics of Participants

This section presents the background characteristics of the participants from whom data was obtained. The variables that described respondents' background included gender, class size, class level taught, training level in special needs education, teaching experience, experience with teaching pupils with intellectual disabilities and number of pupils with intellectual disabilities in one's class. The relations of these background variables with attitudes and willingness have also been investigated. They are first presented in tables followed by brief descriptions.

4.2.1 Gender Distribution

Participants were asked to indicate their gender by ticking out male or female options.

Table 1: Gender Distribution

Gender	Frequency	Percent
Males	84	69.4
Females	37	30.6
Total	121	100
Missing	4	

The table indicates that more male teachers (69.4 %) participated in the survey than their female counterparts (30.6). It was rather surprising that some of the teachers did not indicate whether they were male or females.

4.2.2 Class Level

Class level was described as lower, middle and upper primary according to the Uganda system of education. In Uganda, lower primary represents primary one and two (first and second grades), middle is primary three and four (third and fourth

grades) and upper primary are primary five, six and seven (fifth, sixth and seventh grades). Table 2 shows the class levels in which teachers taught.

Table 2: Class Level Taught

Class Level	Frequency	Percent
Lower primary	26	20.8
Middle primary	43	34.4
Upper primary	53	42.4
Total	122	100

The table indicates an almost equal distribution of teachers across the three class levels. However a slight majority of participants (42.4%) taught in upper primary classes compared to middle (34.4%) and lower primary classes (20.8%).

4.2.3 Class Size

By class size was meant the number of pupils in the classes taught by teachers. Participants' responses indicated variations in class sizes as shown below.

Table 3: Class Size

Number of pupils	Frequency	Percent
0-50	51	40,8
51-100	50	40,0
100+	24	19,2
Total	125	100,0

The table reveals that an almost equal number of teachers taught in classes ranging between 1 to 50 (40.8%) and 51 to 100 (40%) pupils. However, 19.2% of the teachers also indicated that they taught well over 100 pupils in a single classroom. In Uganda

the teacher-pupil ration is supposed to be 1:50 per class. Compared to the normal teacher pupil ratio provided by the policy, it can be concluded that classes with 100 to 200 pupils in which some teachers taught can be described at best as very large and at worst as overcrowded. This has implications both on the quality of instruction and also on teachers' attitudes as investigated here.

4.2.4 Training Level

Participants were asked to show their training levels in the field of Special Needs Education. The training level was broken down as shown in table 4.

Table 4: Training Level in Special Needs Education

Training level	Frequency	Percent
Untrained	95	77,2
Diploma	3	2,4
Bachelor's Degree	1	,8
Seminars & Workshops	24	19,5
Total	123	100,0
Missing	2	

Results on the training level of participants disclosed that a very large percentage of teachers (77.2%) were totally untrained in the field of special needs education with only one teacher (0.8%) who has attained formal training at a bachelor's degree level. 3 participants held diplomas in special needs education and 24 of them have had informal training through seminars or workshops related to special needs education.

4.2.5 Teaching Experience

Participants indicated their teaching experience in years. The groupings of years of experience were done with some assumptions in mind. Teachers below ten years' experience in service were considered to be inexperienced meanwhile teachers who

taught between 11 and 20 years were considered to be experienced and probably amenable to change. On the other hand, teachers with 21+ years were thought to be very experienced but probably a little bit inflexible and less open to new trends in education such as inclusive education practices.

Table 5: Teaching Experience

Experience in years	Frequency	Percent
0-10	89	71,2
11-20	19	15,2
21+	17	13,6
Total	125	100,0

Table 5 above shows that most of the teachers have taught within the range of 0 to 10 years while a good number of them (17) have already taught for 21 years and above.

4.2.6 Experience in Teaching Pupils with Intellectual Disabilities

Participants were asked to show if they were teaching or had ever taught pupils with Intellectual disabilities by the time the study was conducted. It was assumed that most of the teachers might not have any experiences in teaching pupils with intellectual disabilities and the results are shown in the table below.

Table 6: Experience in Teaching Pupils with Intellectual Disabilities

Have you ever taught pupils with intellectual disabilities?	Frequency	Percent
Yes	57	47,1
No	64	52,9
Total	121	100
Missing	03	

The teachers' responses varied with 64 of them (52.9%) indicating that they never taught while 57 of them (45.6%) acknowledged having taught pupils with intellectual disabilities. Surprisingly, there was no big difference in the number of teachers who had taught and those who had never taught pupils with intellectual disabilities as was originally assumed.

4.2.7 Presence of Pupils with Intellectual Disabilities

Participants were also asked to show if they had any pupil with intellectual disability in the classes they taught. They were free to indicate if they were not sure they had.

Table 7: Presence of a Pupil with Intellectual Disabilities in Class

Do you have a pupil with intellectual disabilities in the class you teach?	Frequency	Percent
Yes	50	40,3
No	58	46,8
Not sure	16	12,9
Total	124	100,0
Missing	01	

Table 7 above indicates that while 16 teachers (12.9%) were not sure whether they had the pupils or not, 50 (40.3%) said they had pupils and 58 (46.8%) said they did not have any pupil with intellectual disabilities in their classes. Participants who said they were not sure probably did not know how to assess and/or identify pupils with intellectual disabilities. This should be understandable considering that 77.2% of the participants had indicated that they were totally untrained in the field of Special Needs Education.

4.2.8 Number of pupils with intellectual Disabilities in Class

Teachers who had indicated that they had pupils with intellectual disabilities in class were asked a follow up question to say how many pupils they were in their classes.

Table 8: Number of Pupils with Intellectual Disabilities in each Teacher's Class

Number of pupils with intellectual disabilities	Frequency	Percent
1	14	28,6
2	15	30,6
3	12	24,5
4	5	10,2
5	1	2,0
6	1	2,0
12	1	2,0
Total	49	100,0

Only 40.3% of the participants indicated that they had pupils with intellectual disabilities in their classes. When asked to show the number of these pupils, one teacher had up to 12 pupils with intellectual disabilities in a single class. Most of the teachers indicated that they had between one (1) and six (6) pupils with intellectual disabilities in their classes. There were 49 teachers who had pupils with intellectual disabilities in their classes. This number could be more considering that some teachers had indicated that they were not sure whether they had pupils with intellectual disabilities in their classes or not.

4.3 Teachers' General Attitudes to Including pupils with intellectual disabilities

The first research question sought to establish teachers' attitudes towards including pupils with intellectual disabilities in ordinary schools. To answer this question,

attitude scores on each of the variables were summed up. The total sum was divided by the total number of items (23) to give the mean attitude score which was found to be 2.3. The distribution of the mean attitude scores on each variable were shown on the attitude scale. Teachers' overall attitudes were interpreted by comparing the distribution of the attitude scores with the total mean score on a graph (Figure 3).

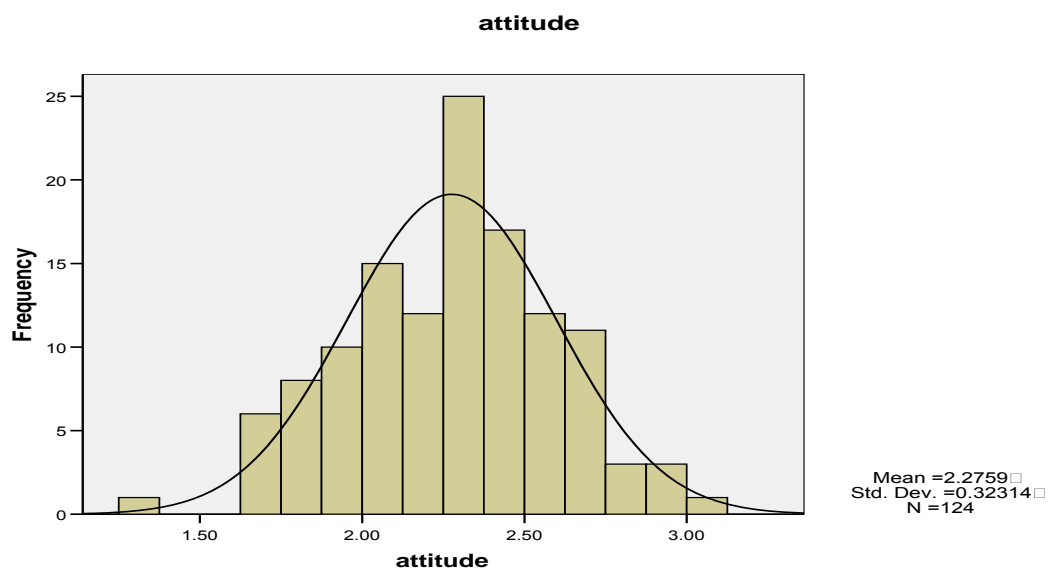


Figure 3: Primary Teachers' Attitudes to Include Pupils with Intellectual Disabilities in Ordinary Schools

The graph showed that teachers generally possessed (almost) positive attitudes towards including pupils with intellectual disabilities. Nevertheless the table also shows a few cases that had very negative and very positive attitudes. Overall there was almost normal distribution signifying that there was no clear tendency towards very positive or very negative attitudes.

4.4 Teachers' General willingness to Include Pupils with Intellectual Disabilities

The second research question was concerned with the extent to which teachers were willing to include pupils with intellectual disabilities in ordinary schools. Willingness

was also rated on a scale and interpreted according to the scores on the willingness sub scale in the same way as described for attitude.

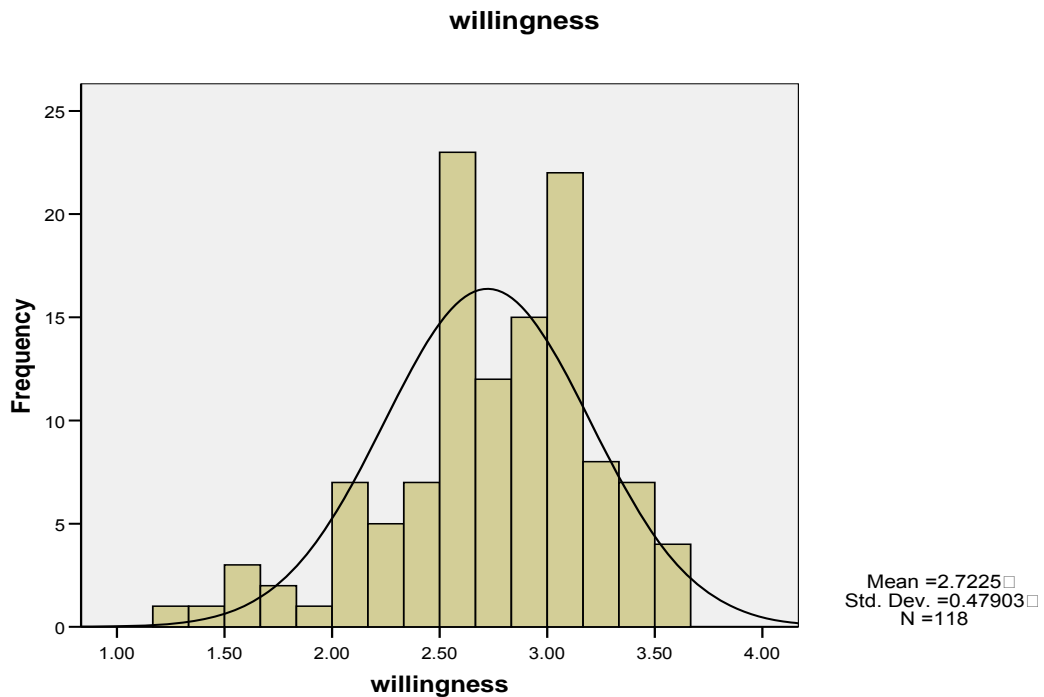


Figure 4: Primary Teachers' Willingness to Teach Pupils with Intellectual Disabilities in Ordinary Schools

Taking the mid point as 2.5 and the mean as 2.7 as indicated on the graph above, the graph shows that most teachers were very willing to include pupils with intellectual disabilities in ordinary schools. Unlike attitude, there is a clear tendency towards willingness indicating that more teachers were very willing. While teachers were almost positive in their attitudes, they were clearly very willing to teach pupils with intellectual disabilities in ordinary schools.

4.5 The Relation between Teachers' Attitudes and Willingness

Another research question investigated was about finding out whether teachers' attitudes had any relation with their willingness to include pupils with intellectual disabilities. A Pearson's correlation coefficient, shortened as r in the table, was used to show if there was any relation between attitudes and willingness.

Table 9: Attitude-Willingness Correlation

Item	N	r	P
Attitude and willingness	118	.354	.000

The results indicate that there is a strong, positive correlation between attitudes and willingness and the relation was very significant as shown by ($p = .000$). It was found that an increase in teachers' attitudes tended to correspond with an increase in their willingness and the reverse was also true. Therefore it can be inferred that the more positive teachers were in their attitudes, the more likely they were to be willing to include pupils with intellectual disabilities into ordinary primary schools.

4.6 Attitudes and Willingness in Relation to some Background Variables

4.6.1 Gender

The relation between gender and teachers' attitudes and willingness was tested using the independent samples t-test. The table below shows the t-test results on whether attitudes and willingness varied according to the gender of the participants.

Table 10: Gender Difference in Relation to Attitudes and Willingness

Item	Gender	N	Mean	SD	t	df	p
Attitude	Male	84	2.2933	.33021	.967	(118)	.335
	Female	36	2.233	.30922			
Willingness	Male	81	2.7160	.46478	-.035	(53,844)	.972
	Female	33	2.7197	.52107			

Regarding attitudes, male teachers tended to show a slightly more positive attitude than females, but the difference was not statistically significant ($p = .335$). There was however no gender difference at all in relation to teachers' willingness to include pupils with intellectual disabilities implying that teachers' willingness did not vary according to their gender.

4.6.2 Gender Correlation with Attitudes and Willingness

A Pearson's correlation analysis was conducted to find out whether the correlation of attitude and willingness were the same or different for male and female participants.

Table 11: Gender Correlation of Attitude and Willingness

Gender	Item	N	r	p
Males	Attitude and willingness	84	,482	.000
Females	Attitude and willingness	83	,174	.333

The results show a strong and very significant correlation ($p = .000$) between attitude and willingness in the case of male teachers. This implies that male teachers' willingness varied according to whether they had positive or negative attitudes toward inclusion. It can be concluded that male teachers tended to be willing if they held positive attitudes and less willing if they had negative attitudes. For female teachers however, there was no significant correlation between their attitudes and willingness. Therefore female teachers' willingness did not necessarily vary

depending on whether they had positive or negative attitudes.

4.6.3 Class Level in Relation to Attitudes and Willingness

The Class levels included lower primary, middle primary and lower primary classes as previously explained. It was assumed that teacher' attitudes and willingness might vary according to the class levels in which they taught. The one way ANOVA was used to test whether there was any difference in teachers' attitudes and willingness according to the class levels in which they taught.

Table 12: Class Level in Relation to Attitude and Willingness

Item	Class level	N	Mean	SD	F	df	p
Attitude	Lower	26	2.27	.306	.317	(22,118)	.317
	Middle	42	2.22	.323			
	Upper	53	2.32	.334			
	Total	121	2.27	.325			
Willingness	Lower	35	2.66	.525	.361	(2,112)	.698
	Middle	39	2.77	.537			
	Upper	51	2.73	.424			
	Total	115	2.73	.484			

The results indicate that in terms of attitudes, upper primary teachers tended to show a slightly more positive attitude than middle and lower primary teachers, but the difference was not significant as demonstrated by ($p = .317$). Regarding willingness, middle and upper primary teachers were slightly more willing than lower primary teachers and the difference was also not significant ($p = .698$).

4.6.4 Class Size in Relation to Attitudes and Willingness

In the questionnaire, class size was called number of pupils in one's class and the teachers indicated the actual number of pupils they had in their classes. During the

treatment of data for further analysis, the actual numbers of pupils were recorded into 5 response groups. In order to allow for the one way analysis of variance, the five response groups were further reduced into three as indicated in table 13 below. The assumption was that teachers who taught in larger classes might tend to possess negative attitudes towards inclusion compared to those who taught in smaller classes. The one way ANOVA was used to determine whether the sizes of the classes in which teachers taught had any relation to their attitudes and willingness.

Table 13: Class Size in Relation to Attitude and Willingness

Item	Class size	N	Mean	SD	F	df	P
Attitude	0 -50	51	2.3129	.33690	1,042	(2,121)	.356
	51 - 100	49	2.2760	.34322			
	101+	24	2.1975	.23744			
	Total	124	2.2759	.32314			
Willingness	0-50	48	2.8255	.44269	2,656	(2,115)	.075
	51-100	46	2.7011	.47396			
	101+	24	2.5573	.52515			
	total	118	2.7225	.47903			

The one way ANOVA results showed that an increase in class size had a slight decrease in the teachers' attitudes though it was not significant ($p = .356$). Meanwhile there was also a decrease in teachers' willingness whenever there was an increase in class size. The difference was nearly significant for willingness ($p = .075$). Teacher' attitudes and willingness therefore tended to decrease with an increase in the class size they taught.

4.6.5 Training Level in Relation to Attitudes and Willingness

In the questionnaire, training level had four response categories (untrained, diploma, bachelor's degree and workshops and seminars in SNE). The trained teachers were

regarded to be those with formal qualifications like diploma or bachelor's degree and those with informal training in workshops and seminars. For purposes of analysis, these were recorded and reduced to dichotomous response categories namely trained and untrained (table 15). The independent samples t-test was used to show whether teachers' training or no training had any relation to their attitude and willingness to include pupils with intellectual disabilities.

Table 14: Training Level in Relation to Attitude and Willingness

Item	Training level	N	Mean	SD	t	df	P
Attitude	Untrained	95	2,2604	.31719	-1,215	(120)	.227
	Trained	27	2,3462	.34709			
Willingness	Untrained	90	2,6569	.49879	-2,926	(114)	.004
	Trained	26	2,9615	.33311			

The test result showed that trained teachers had a slightly more positive attitude than untrained teachers but the difference was not significant ($P = .227$). However there was a strong and significant relation between training and teachers' willingness to include pupils with intellectual disabilities in ordinary classes as shown by ($p = .004$). Trained teachers therefore tended to show more willingness than untrained teachers.

4.6.6 Teaching experience in Relation to Attitudes and Willingness

Teachers were asked to indicate the actual number of years they had taught so far at the time the study was conducted. The lowest and highest years of experience in service were 1 and 43 years respectively. During analysis, the actual years were transformed and recorded into three groups to allow for one way analysis of variance.

Table 15: Teaching Experience in Relation to Attitude and Willingness

Item	Experience	N	Mean	SD	F	df	p
Attitude	0-10	88	2,2451	.32127			

	11-20	19	2,3616	.28291	1,444	(2,121)	.247
	20+	17	2,3402	.36481			
	Total	124	2,2759	.32314			
Willingness	0-10	84	2,7336	.46439	.329	(2,115)	.720
	11-20	18	2,7500	.58787			
	21+ yrs	16	2,6328	.44128			
	Total	118	2,7225	.47903			

In contrast to the assumption that experienced teachers might be more positive towards including pupils with intellectual disabilities, the result showed no significant relation between teachers' experience and their attitude or willingness to include pupils with intellectual disabilities. Therefore teachers' attitudes did not vary according to their years of experience in service.

4.6.7 Experience in Teaching Pupils with Intellectual Disabilities

Participants were asked to indicate whether they were teaching or had ever taught pupils with intellectual disabilities by the time the study was conducted and the responses were either yes or no. The independent samples t-test was used to see if teachers who were teaching or had ever taught pupils with intellectual disabilities had any difference in attitudes and willingness from those who never taught.

Table 16: Attitudes and Willingness in Relation to Experience in Teaching Pupils with Intellectual Disabilities

Item	Experience	N	Mean	SD	t	df	p
Attitude	No	64	2,2099	.31729	-2.271	(119)	.025
	Yes	57	2,3410	.31629			
Willingness	No	62	2,6431	.52589	-1.967	(113)	.052
	Yes	53	2,8184	.41062			

The result showed that teachers who were teaching or had taught pupils with intellectual disabilities before, tended to have more positive attitudes and the

difference was significant ($p = .025$). Teachers who were teaching or had taught pupils with intellectual disabilities before also tended to show more willing, although the difference was only slightly significant ($p = .052$). This demonstrates that direct experience with teaching pupils with intellectual disabilities might be an important factor in shaping teachers' attitudes and willingness.

4.6.8 Presence of a Pupil with Intellectual Disabilities in a Class

Teachers were asked to indicate whether they had any pupils with intellectual disabilities in their classes and their responses included yes, no and not sure as shown in table 17. The one way analysis of variance was conducted to see whether the presence of pupils with intellectual disabilities in teachers' classes contributed to the variation of teachers' attitudes and willingness to include them in ordinary schools. The results show that teachers who had at least a pupil with intellectual disabilities in the classes they were teaching tended to have more positive attitudes and were more willing than those who never had any pupil with intellectual disabilities in their classes. The differences were not significant for attitudes ($p = .150$) but slightly significant for willingness ($p = .019$). See table 17 in the next page.

Table 17: Relation of Presence of Pupils with Intellectual Disabilities to Attitudes and Willingness

Item	Presence	N	Mean	SD	F	df	P
Attitude	Yes	50	2,3322	.32462	1,894	(2,120)	.150
	No	57	2,2624	.31833			
	Not sure	16	2,1576	.32570			
	Total	123	2,2771	.32419			
Willingness	Yes	47	2,8165	.45058	4,082	(2,114)	.019
	No	54	2,7315	.46859			
	not sure	16	2,4297	.51835			
	Total	117	2,7244	.48064			

4.6.9 Attitudes in Relation to Degree of Intellectual Disabilities

The other research question sought to establish whether there was a relation between teachers' attitudes and the degree of intellectual disabilities. The degree of intellectual disabilities was described as mild and severe (Table 18) and a spearman's rho correlation was used to determine the correlation.

Table 18: Attitudes in Relation to Degree of Intellectual Disabilities

Item	Degree of Intellectual Disability	Spearman's rho	p
Attitude	Mild intellectual disabilities	.057	.537
	Severe intellectual disabilities	-.001	.989

The spearman's rho correlation analysis showed that there were no significant correlations between attitudes and the degree of intellectual disabilities. In the case of severe intellectual disabilities, there was an insignificant negative correlation with attitude. Teachers' attitudes and willingness were therefore not affected by the degree of intellectual disabilities.

4.6.10 Correlation of Attitude Factors with Willingness

It was thought important to find the relation of the factors from the attitude scale with willingness. The underlying assumption was that teachers' willingness might be affected by the factors that affect attitude. The attitude factors were obtained during the process of factor analysis which is explained into detail in the next subsection. Each of the factors comprised four questions as shown in tables 20 to 23. A Pearson's correlation was used to establish the relations of the factors with willingness as shown in Table 19.

Table 19: Correlations of Attitude Factors with willingness

Factor of Attitude	Correlation with Willingness	p
Assumed benefits of inclusion to ordinary and pupils with intellectual disabilities	.328	.000
Assumed behaviour of pupils with intellectual disabilities	.225	.015
Classroom management of pupils with intellectual disabilities	.173	.061
Placement for pupils with intellectual disabilities	.158	.087

The result showed that teachers' assumed benefits of inclusion to ordinary pupils and pupils with intellectual disabilities had a strong and very significant correlation with willingness as shown by ($p = .000$). Assumed behaviour of pupils with intellectual disabilities in ordinary classes also showed a significant correlation with willingness ($p = .015$). However the two factors, classroom management and placement for pupils with intellectual disabilities showed rather weak correlations with teachers' willingness. Overall, each factor had some relation to willingness. Therefore, it can be inferred that the most important attitude factor that affected teachers' willingness tended to be their assumed benefits of inclusion to the ordinary pupils and pupils with intellectual disabilities, followed by teachers' concerns about the possible behaviour of pupils with intellectual disabilities in inclusive settings.

4.7 Factor Analysis

Having conducted a reliability analysis, 23 items which were found to have good reliability coefficients were retained and used for factor analysis while the 7 items with low reliability were dropped. Factor analysis was conducted to detect how variables that described similar characteristics clustered or grouped up together under the factors they best described (De Vaus 2002). In order to determine how many factors the 23 variables would group up into, an exploratory factor analysis was done. This extracted a component matrix with several factors. To remain with the best

factors only, some factors had to be reduced by considering their eigenvalues³. The higher the eigenvalue, the more variance the factor explains. By rule, only those factors with eigenvalues greater than 1 are to be retained (De Vaus 2002). After eliminating factors with eigenvalues less than 1, a factor matrix of 11 factors was extracted. In the factor matrix, each column represents a factor and the figures in the rows represent the factor loading between that factor and the particular variable (Appendix 8). However even the 11 factors generated were still considered too many.

Therefore in order to maximise the variance explained by each factor, the variables whose variance the main factors did not account for were further eliminated by considering their communality figures⁴. Communalities range from 0 to 1 and variables with communalities figures lower than 0.6 were removed. This resulted into a matrix of 7 factors but some items were still loading on more than one factor.

At the final extraction stage, a principal component analysis was processed using Varimax rotation method, with restriction to only four factors. This resulted in a matrix of 4 final factors (Appendix 8) on which variables belonged to the factors that they described most clearly i.e. the factors on which they loaded high. The factors accounted for the following percent of the total variance: factor 1(14.620%), factor 2 (9.32%), factor 3 (9.11%) and factor 4 (7.943%).

The results from the factor analysis were subsequently used to construct the total attitude scale and the sub-scales for the 4 factors. The total attitude scale provided an index on which the distribution of the attitude scores on every variable were rated such that the highest scores represented positive attitudes and the lowest scores negative attitudes.

³ Eigenvalue is a measure that indicates the amount of variance in the pool of original variables that a factor explains

⁴ Communality figures explains the amount of variance in a variable that is explained by a combination of the extracted factors.

However the reliabilities for the sub scales (see below tables) were quite low but it was also expected considering that the items were very few. The following tables describe the sub scales which were constructed basing on the four factors and how they were interpreted in relation to teachers' attitudes towards including pupils with intellectual disabilities.

Table 20: Items Comprising Factor 1

Item	Item-total correlation	Cronbach's Alpha
Pupils with intellectual disabilities will most likely show behaviour problems in ordinary class	.316	.511
Inclusion will have a negative effect on the emotional development of pupils with intellectual disabilities	.351	
Increased freedom in the classroom will create too much confusion	.381	
The contact pupils with intellectual disabilities have with ordinary pupils may be harmful	.175	

The four items that clustered under factor 1 tended to describe behaviour related challenges. This factor accounted for the highest percentage of the total variance (14.620%), and Cronbach's alpha coefficient of .511 implying that teachers seemed to be more concerned about the behaviour of pupils with intellectual disabilities in the ordinary classes if they were to be taught with ordinary pupils. Therefore variables describing behaviour related challenges had the strongest relation to teachers' attitudes.

Table 21: Items Comprising Factor 2

Item	Item-total correlation	Cronbach's alpha
The needs of pupils with intellectual disabilities are best served through special, separate classes	.450	.460
Pupils with intellectual disabilities will develop academically more rapidly in special than in ordinary classes	.395	

Things done by teachers in ordinary classrooms are inappropriate for pupils with intellectual disabilities	.246	
Effective teaching of pupils with intellectual disabilities is best done by resource room or special teachers	.294	

The second factor which accounted for 9.32% of the total variance also had four variables. The variables altogether seemed to describe a common dimension which could be named Placement for pupils with intellectual disabilities. It can be deduced from this factor that though teachers may agree to the idea of inclusion for pupils with intellectual disabilities, they tended to believe that special, separate provisions are the best placements for meeting their academic needs. The first and second factors were therefore the strongest factors in relation to attitudes towards inclusion.

Table 22: Items Comprising Factor 3

Item	Item-total correlation	Cronbach's alpha
The inclusion of pupils with intellectual disabilities will foster understanding and acceptance by ordinary pupils	.331	.562
The Presence of pupils with intellectual disabilities will promote acceptance of difference on the part of ordinary children	.308	
Pupils with intellectual disabilities should be given opportunity to function in the ordinary class as much as possible	.249	
Inclusion will be beneficial to ordinary pupils	.180	

The third factor, which accounted for 9.11% of the total variance, comprised four variables which tended to describe the teachers' assumed benefits of inclusion to the ordinary children. The item-total correlation of the variables indicate that the greatest benefit of inclusion for the pupil with intellectual disabilities was that of acceptance and understanding of their needs followed by acceptance of differences among learners by ordinary pupils.

Table 23: Items Comprising Factor 4

Item	Item-total correlation	Cronbach's alpha
Pupils with intellectual disabilities will monopolise the ordinary teacher's time	.341	.429
The extra attention needed by pupils with intellectual disabilities is to the disadvantage of ordinary children	.205	
Inclusion will require significant changes in ordinary school curriculum	.240	
Pupils with intellectual disabilities make inadequate attempts to complete their assignments	.341	

The fourth factor comprised four variables that collectively tended to describe teachers' concerns about classroom management of pupils with intellectual disabilities in the ordinary classes. From the grouping of the variables, it seemed that teachers viewed classroom management in terms of time and the extra attention that might be needed to accommodate the needs of all pupils in inclusive settings. The other two variables of the same factor however tended to point towards the changes in curriculum that might be brought about if pupils with intellectual disabilities were included in ordinary schools. The factor accounted for 7.943% of the total variance and had a Cronbach's alpha of .429.

In conclusion, the 23 variables grouped up into four factors during the factor analysis. The four factors in order of strength in relation to attitude towards inclusion were: assumed behaviour of pupils with intellectual disabilities in ordinary classes, Placement for pupils with intellectual disabilities, assumed benefits of inclusion to the ordinary pupils and the pupils with intellectual disabilities and lastly Classroom management of pupils with intellectual disabilities in ordinary schools.

5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In the previous chapter findings were mainly presented and analysed with only brief comments on them. In this chapter they are commented on into some more details and discussed in view of other findings from related previous studies. Discussions are done according to the research questions investigated and these were:

- What are primary school teachers' attitudes towards the inclusion of and to what extent are they willing to include pupils with intellectual disabilities in ordinary schools?
- What is the relation between primary teachers' attitudes and their willingness to include pupils with intellectual disabilities in ordinary schools?
- What is the relation between attitudes and some factors such as: gender, class size, class level taught, training level, experience in service, experience in teaching pupils with intellectual disabilities and presence of pupil with intellectual disabilities in their classes?
- Do teachers' attitudes and willingness to include pupils with intellectual disabilities vary according to the degree of intellectual disabilities?
- What is the relation between attitude factors and willingness?

Conclusions are drawn from key findings to the above questions and necessary recommendations are made to call for possible actions and for future research.

5.2 Generalisability of Findings and Conclusions

Since it was the primary interest of this study to generalise findings and conclusions, considerations were made at different stages to strengthen the extent to which the findings and conclusions could be applied from the sample that participated in the study to the entire population of primary teachers in Abim district.

Firstly, the study sample was relatively large (30% of all the teachers), and were randomly selected. This satisfied one consideration that respondents should be randomly sampled in order for the findings to be generalised (Gall, Gall & Borg 2007). The sample of 30% of all the teachers was also considered fairly representative of the target population of teachers since it was randomly sample. It was not possible to use a larger sample than this due to time limit and other practical implications.

In addition, since questionnaires were group administered, a reasonably high response rate of 98% was obtained; a response rate of 70% is otherwise adequate for a carefully selected sample (Baker 1995). Therefore the findings of this study should be generalised since a very high response rate was achieved.

During construction of the questionnaire, adequate care was taken in the development of items. The attitude scale used was adapted to make it relevant to the study context. Larivee and Cook (1979) however cautioned against the generalisation of her factor analysis due to the possible bias among respondents in her sample and the absence of some background variables. In the current study, these were taken care of by modifying some of the background variables and adding new ones that were necessary as explained in the methodology chapter. Findings obtained using the adapted instrument can therefore be generalised but may not be compared with other studies that were done under different contexts.

Considering that the sample of this study was only drawn from among primary teachers in Abim district, the findings and conclusions can therefore be generalised only to the teachers of Abim district and not to teachers in other districts.

5.3 Discussion

As mentioned previously the discussion of the key findings have been arranged in relation to the research questions that were investigated. The findings are discussed in reference to findings from some relevant previous studies that were either similar or contrary to the findings of the present study. Most of the studies cited here were about teachers' attitudes towards inclusion of children with special needs in general and some were specific to inclusion of children with intellectual disabilities.

5.3.1 Primary Teachers' Attitudes in Abim District

The main research question of this study endeavoured to establish teachers' attitudes towards including pupils with intellectual disabilities in ordinary schools in Abim district. Findings with regard to this question showed that teachers in the sample overall possessed (almost) positive attitudes. There were a few teachers who were very negative or very positive but there was no clear difference among them as most teachers lay within the mean attitude score (Figure 3). This finding was important for the earlier assumption of this study that primary teachers' attitudes were crucial for the successful implementation of inclusive education. Sarason and Doris (1979) have emphasised that the effectiveness of any program is dependent on the attitudes of the people involved in the implementation of that programme. Happe (1983) supports that this is because implementers will invest their efforts depending on how much they like the program and how they think it is going to work out. In addition, teachers who possess positive attitudes tend to show a particular interest in acquiring new knowledge and experiences so as to improve their work and to decrease the instructional difficulties they are facing (Stancic, 2000). Therefore since primary teachers are responsible for the education of children with intellectual disabilities in ordinary schools, the almost positive attitudes obtained in this finding is a positive prospect for the inclusion of pupils with intellectual disabilities in Abim district.

5.3.2 Primary Teachers' Willingness to Teach Pupils with Intellectual Disabilities

The second part of the main research question was concerned with finding out the extent to which teachers were willing to teach pupils with intellectual disabilities in the same class with ordinary school pupils. In addition to establishing teachers' attitudes, it was also found necessary to establish teachers' willingness separately. Surprisingly, the findings showed that the teachers were significantly very willing to teach pupils with intellectual disabilities. The importance of teachers' willingness to the success of inclusion was underscored by Vaughn & Schumm (1995) and Chow & Winzer (1992) who suggested that since ordinary teachers are primarily responsible for pupils with intellectual disabilities who are placed in their classes it is imperative that the success of the inclusive movement thrives largely as a function of their willingness to work with pupils who have disabilities. If the teachers are willing to embrace inclusive education, they are likely to get practically involved in its implementation in schools.

5.3.3 Attitude-Willingness Relation

The third research question focused on establishing whether there was a correlation between teachers' attitudes and their willingness. A Pearson's correlation coefficient showed a strong and very significant correlation between attitudes and willingness as indicated by ($p = .000$). The result also showed that an increase in teachers' attitudes tended to correspond with an increase in their willingness, indicating that attitudes do have a relation to willingness. The attitude-willingness correlation was investigated because the study presupposed that the more positive teachers' attitudes were, the more they were willing to include pupils with intellectual disabilities and vice versa. According to the theory of planned behaviour, the more favourable the attitude the stronger should be a person's intention (willingness) to perform the behaviour under consideration (Ajzen 1988). This finding appeared to support this supposition because it was found that an increase in teachers' attitudes corresponded to an increase in their willingness and vice versa. Ajzen and Fishbein (1975) claimed that

attitudes affect intentions of individuals which in turn affect their behaviour. Therefore the teachers' strong willingness was probably affected by the earlier finding which showed that overall they had almost positive attitudes.

In real practice however, it can be possible that although teachers agree to include pupils with intellectual disabilities into ordinary schools in principle, this agreement may not always translate into a willingness to work with pupils with intellectual disabilities because several other factors inter play. The following sections discuss how teachers' attitudes and willingness may vary according to certain factors.

5.3.4 Gender Differences

Gender was one of the variables investigated to see its relation to attitudes and willingness. The findings showed that male teachers had a slightly more positive attitude than females, but the difference was not significant. There was however no relation at all between gender and teachers' willingness. Similarly Greek and Cyprus male teachers were found to have more positive attitudes than female teachers (Batsiou et al. 2006). A different result was found by Conaster, Block and Lepore (2000), Folsun-Meek et al. (1999) and Curtis (1985) who found a more positive attitude towards teaching pupils with special needs among female teachers.

The current finding was a little surprise because it was anticipated that female teachers might be more positive than male teachers. Attempting to explain why male teachers were more positive than females Villa et al. (1996) and Wisniewski and Alper, in (Zambelli & Bonni 2004) claimed that teaching in inclusive classes was a very difficult and laborious task for school teachers since it required more time for planning and preparation of lessons. Jobe, Rust and Brissie (1996) insinuated that male teachers were more willing to under take this difficult task because they had greater confidence in their abilities in contrast to their female counterparts. This explanation was not necessarily supported in the present finding. However, it can not also be concluded with certainty in this study that the male teachers' over representation in the sample (70% against 30%) might have accounted for their

slightly more positive attitude. The male-female teachers' imbalance could have been an indication that in the field there were fewer female teachers than male teachers in the sampled schools, something the investigator could do nothing about.

5.3.5 Class Size and Attitudes

Class size was one of the variables also investigated in relation to attitudes and willingness. The one way ANOVA results showed that there was a slight decrease in the mean scores of teachers' attitudes when there was an increase in class size though it was not significant. However there was a nearly significant decrease in teachers' willingness with an increase in class size. The class sizes in the present study were generally large with some teachers teaching up to 200 pupils in a single class. It was presupposed that teachers could be less positive about including pupils in ordinary classes when they taught in larger classes than when they taught in smaller classes.

Villa et al. (1996) found that mainstream teachers of classes containing 15 to 20 pupils expressed more positive attitudes than teachers in classes containing 21 to 30+ pupils. In contrast, Cornold et al. (1998) found that teachers' attitudes did not vary according to class sizes. Larrivee and Cook (1979) also found no significant variation in teachers' attitudes according to class size. The difference in the context of this study from those referred to here might be explained by the variation in the class sizes. While Larrivee and Cook (1979) reported that the mean class size in her study was 26.5 to 28.5, Cornold et al. (1998) reported 156 classes with just 22 to 30+ pupils. The classes in the present study were quite large, with some classes containing up to more than 200 pupils. Therefore the non significant findings in those studies could have been attributed to the relatively small class sizes in which their participants taught.

5.3.6 Class Level and Attitudes

Class level was divided into three namely lower, middle and upper primary classes with an assumption that teachers' attitude could be different depending on the class

level in which they taught. Results revealed that upper primary teachers were slightly more positive than lower and middle primary teachers but not significant. Similar findings were also reported by Larivee and Cook (1979) and Engh (2003) both of whom found no significant difference in attitudes according to class or grade levels. Engh (2003) however reported a slightly more positive attitude in the teachers that taught in grades 4-5 but this was also not significant. Contrary to the findings, one might expect that upper primary teachers would be more negative due to their pre-occupation with preparation of pupils for national and other external examinations in which schools normally strive to excel. Their slightly positive attitude could have been due to the relatively smaller class sizes upper primary teachers taught in compared to the lower or middle primary class sizes. In Uganda lower primary classes usually register big numbers of school beginners but the numbers reduce in upper primary classes due to school drop outs.

5.3.7 Teacher Training in Special Needs Education and Attitudes

Another variable investigated for possible variation in attitude was teachers' training level in special needs education. Results obtained using t-test showed that trained teachers were slightly more positive than untrained teachers but the difference was not significant. However, trained teachers were significantly more willing than untrained teachers ($p = .004$). This finding is in agreement with findings by researchers Conaster et al. (2000) and Martinez (2003) who found out that teachers who had taken part in courses related to teaching students with special educational needs had a positive attitude than those who had not taken part in any such courses. Rizzo and Vispoel (1992) and Urquhart (1999) also pointed out the important role that academic preparation and instructive experiences might play in shaping teachers' attitudes positively in teaching pupils with special educational needs. Rizzo and Vispoel (1991) add that the positive attitude could have been a result of the teachers' great confidence in themselves which is achieved with knowledge gained through training. Buell et al. (1999) also found that teachers who had greater knowledge about inclusion also had stronger beliefs that they could influence students during inclusion.

Clark, French and Henderson (1986) appear to support the present findings when they state that many teachers have negative attitudes towards the inclusion of students with special needs because they don't know how to teach them due to inadequate professional preparation at college or university.

Contrary to the present study findings however, Hastings et al. (1996) found out that teacher training courses had little impact on students' teachers' attitudes towards students with special educational needs. In conclusion, the significant willingness of trained teachers is an indication that empowering teachers with basic knowledge and skills through formal and/or informal training opportunities might help to improve their attitudes since it boosts their competency and beliefs in their own abilities to teach pupils with intellectual disabilities in ordinary classes.

5.3.8 Teaching Experience and Attitude

Experience in the teaching service was also investigated as a contributory factor to attitude. Years of experience were grouped such that teachers below 9 years of experience were thought to be inexperienced, above 10 years were experienced and those with 21+ years were very experienced. The underlying assumption for this grouping was that inexperienced teachers might lack adequate exposure to new educational trends while experienced teachers were thought to possess more knowledge and information and probably more open to receive new changes. Very experienced teachers were assumed to possess traditional methods which they might not easily give up for new changes in educational practices. This study however found that teachers' years of experience had no significant relation with their attitudes and willingness. Other studies have also found out that there was no relation between teachers' attitudes and their teaching experience in ordinary schools (Batsiou et al. 2006 & Praisner 2003). Contrary to the present findings, teachers with more years of experience in teaching have been found to express more negative attitudes (Center & Ward 1987) while younger teachers were found to be more positive toward inclusion (Heflin & Bullock 1999).

5.3.9 Practical Experience with Pupils with Intellectual Disabilities

Practical experience in teaching or working with pupils with intellectual disabilities was also investigated as a variable that might have a relation to attitudes of teachers. The independent samples t-test showed that teachers who had gained some practical experience by teaching pupils with intellectual disabilities in ordinary schools had a significantly more positive attitude than those who lacked the same experience ($p = .025$). Other studies also found out that teachers gained positive attitude as a result of experience in teaching pupils with intellectual disabilities. Vianello & Moalli (in Zambelli & Bonni 2004) in their study found out that as far as teachers were concerned, direct experience with special needs children proved to be one of the important variables that shaped teachers' attitudes favourably. Ivey and Reinke (2002) agreed that the practical experience not only influenced positively the attitudes of teachers but also contributed to a better understanding of the importance of their role as teachers. Similarly Janzen et al. (1995) found out that teachers who participated in programs of inclusion gained personal satisfaction and they noticed that students with special educational needs could progress and change for better.

The attitudes of teachers with practical, hands on experience in teaching pupils with intellectual disabilities might have been positively shaped because they came to a realization that children with intellectual disabilities too can learn and that they can manage to teach them without necessarily going through formal training. However it is also possible that direct practical experiences may trigger off or reinforce negative attitudes for different teachers, depending on their discoveries and encounters. Despite this, it might be important for schools to admit pupils with intellectual disabilities to schools so that teachers get opportunities to teach them.

5.4 Degree of Intellectual Disabilities and Attitudes

Another research question sought to find out whether teachers' attitudes and willingness varied according to the degree (mild or severe) of intellectual disabilities.

The underlying assumption was that teachers might tend to be more positive to teach pupils with mild than those with severe intellectual disabilities. This was assumed so because of the relative difficulty often associated to teaching pupils with severe intellectual disabilities. The findings did not however support this assumption. It was found that there was no significant correlation between attitudes and the degree of intellectual disabilities.

In contrast to the present study finding Forlin, Dougla and Hittie (1996) found out that teachers' attitudes depended on the type and degree of students' disabilities. Particularly they reported that attitudes were less positive towards inclusion of students with intellectual disabilities than physical disabilities and that attitudes became less and less positive as the severity of disability increased. In a related survey about attitudes towards inclusion, Scruggs and Mastropieri (1996) also found out that teachers' willingness to include pupils with impairments was influenced by the type and degree of impairment as well as the level of implicit obligations on the part of the teacher. In this study it was found that the degree of intellectual disabilities did not affect teachers' attitudes and willingness.

5.5 Summary and Conclusions

Basing on the findings of this study, it was possible to draw a number of conclusions. It was inferred from the findings that there is a positive prospect for the inclusion of pupils with intellectual disabilities in Abim district since it was found out that teachers possessed almost positive attitudes and were significantly very willing to teach pupils with intellectual disabilities in ordinary schools.

A Pearson's correlations analysis revealed that teachers' attitudes had a strong and very significant relation to their willingness; this implied that the more positive teachers were, the more they were willing to include pupils with intellectual disabilities and vice versa. It is possible to conclude that those teachers who possess

positive attitudes towards inclusive education are most likely to be willing to embrace the implementation of inclusive education practices.

Considering that the official teacher pupil ratio in Uganda is 1: 50 pupils, it can be inferred from the findings that classes in which teachers in Abim district taught were generally very large if not overcrowded. Many teachers (19.2%) of the teachers in the sample were found to teach in classes with more than 100 pupils and 40.2% taught in classes with 50 to 100 pupils. This might have contributed to the shaping of teachers' willingness and attitudes towards inclusion as findings showed that an increase in class size resulted in a decrease in teachers' attitudes and willingness. Therefore, teachers of large class sizes tended to have negative attitudes and those in smaller classes tended to have positive attitudes. This presents a practical challenge for schools and the district to maintain class size within the official teacher-pupil ration.

Teachers that had practical experiences in teaching pupils with intellectual disabilities recorded a significantly favourable attitude and were slightly significantly more willing compared to those who had no practical experiences in teaching pupils with intellectual disabilities at all. Direct practical experience in teaching pupils with intellectual disabilities could therefore be an important factor in shaping teachers' attitudes. However caution should be taken because practical experiences may also trigger off or reinforce potentially negative attitude in some persons depending on their contexts. For teachers to gain experience in teaching pupils with intellectual disabilities, the pupils should be admitted to the ordinary schools.

Findings also showed that 77.2% of the teachers in the sample had not undergone any formal or informal teacher training in the field of special needs education and 51% lacked any experiences at all in inclusive practices specifically in teaching pupils with intellectual disabilities. Therefore there is a strong need for training opportunities (both formal and informal) for teachers in Abim in the field of Special Needs Education and inclusion education practices in general.

Training in special needs education contributes towards positive shaping of teachers' attitudes since trained teachers were found to be significantly more willing to teach pupils with intellectual disabilities. It is apparent that academic and instructional competencies gained through relevant training tend to improve teachers' confidence in their abilities to manage inclusion.

5.6 Limitations

The present study used the survey design with questionnaire as the sole method of data collection. The exclusive use of only questionnaires to obtain data might have yielded rather shallow findings since certain issues could not be followed up into greater depth. Robson (2002) is of the opinion that studies which use only one method could be vulnerable to possible errors linked to that method. Using multiple sources of information would have added breadth and richness to this investigation, and probably minimised likely bias on the part of the investigator and respondents. In addition, the exclusive reliance on only questionnaires to obtain data could not allow different perspectives on the problem investigated to be explored. For example there were no explanations from the participants' points of view to support the statistical findings and conclusions. The findings were therefore statistically probable but the contextual factors that could have explained why certain findings were what they were found to be could not be tapped since only structured questionnaires with closed ended questions were used.

The study also established teachers' attitudes and willingness and how they were related to different variables such as gender, class size, class levels, training level, experiences in teaching, and so on. From the different statistical tests it was possible to establish which of the factors were significantly or insignificantly related to both attitudes and willingness. However it should be pointed out that the present study did not investigate other potential contextual factors that might have also been related to and contributed towards the shaping of primary teachers' attitudes in Abim district. Therefore one needs to be aware that there could have been other (contextual) factors

in addition to the ones investigated in this study that might have accounted for the teachers' attitudes and willingness in the district as established in this study.

Regarding the extent to which the findings and conclusions of this study can be generalised, it is important to note that the sample of the study was only drawn from primary school teachers in Abim district. Teachers from other districts and levels like pre-primary and secondary schools were also not part of the sample and target population. Therefore the findings and conclusions of this study can only be generalised to primary teachers in Abim district and not to secondary, pre-primary teachers or even to primary teachers in districts outside Abim. This is because such teachers were not represented in the sample and they may not have had similar characteristics as primary teachers represented in the sample.

5.7 Delimitations

By the nature of survey and considering the time frame for the study, it was not possible to conduct an intrusive investigation of teachers' attitudes and willingness. The present study was therefore conducted to establish an overview picture of the teachers' attitudes and willingness without going in-depth into other (contextual) issues. While the use of multiple methods could have added breadth and depth into the study, it was feared that multiple methods might prove difficult to adequately use within the limited time and the analysis of data from multiple sources could easily end up being shallow. Since the investigator was not yet adequately experienced in research, only questionnaires were used. Contextual and other potential factors that might have contributed to the shaping of teachers' attitudes and willingness, but were not investigated in the present study have been recommended for future research.

5.8 Recommendations

Based on the findings and conclusions of this study, some recommendations have been suggested for either action by relevant authorities and institutions or for future research. These recommendations are made while taking due considerations for the constraints as well as opportunities that districts and local governments operate in.

5.8.1 Recommendations for Possible Actions

The large portion of teachers not trained at all in SNE in Abim is a pointer for relevant institutions and non governmental organisations to support and organise informal training courses in terms of seminars and work shops to build the capacity of teachers in the field of SNE. In particular, teachers need to be exposed to and encouraged to apply for both the full time and distance learning training opportunities offered at Kyambogo University or other institutions.

The component of special needs education in the curriculum of primary teachers' colleges might need to be strengthened and taught by tutors qualified in Special Needs education. This would equip pre-service teachers coming out of colleges with basic knowledge about inclusion and SNE which will be of immediate use in the field.

The study found that class size contributed to shaping teachers' attitudes, with an increase in class size corresponding to a decrease in teachers' attitudes and willingness. It might be important for the district to find ways of enforcing the policy on teacher pupil ratio so that classes are kept within manageable sizes for teachers. This might involve recruiting more teachers and building more classrooms so that large classes may be streamed (divided into two or more classes).

Teachers' attitudes were found to be almost positive although most of them were very willing, thus indicating that there are still certain teachers who have very negative attitudes. Therefore, awareness raising programs aimed at sensitising teachers, school administrators, parents and other stakeholders are vital in order to promote positive

attitude change among the different stakeholders. This can be done through informal short courses such as seminars and workshops at school and district levels or other media.

5.8.2 Recommendations for Future Research

In Abim district where research information seems to be inadequate, there is a need for more and more research into the issue of inclusion for children with special needs and pupils with intellectual disabilities in particular. Another study would be carried out by other researchers on the current research problem using the same procedure and instrument, to try to see if similar or contrary findings can be obtained.

The current study was a survey and it elicited an overview result about the problem investigated. This meant that reasons behind certain findings could not be investigated. It might be useful to conduct a more intrusive study using multiple sources of information that can give in-depth insight into certain issues that were only superficially investigated due to the use of only questionnaires.

The present study was not able to investigate other contextual factors that might have shaped primary teachers' attitudes and willingness. Other studies in the same field could investigate contextual factors such as culture and traditional practices to see whether they contribute to shaping teachers' attitudes and willingness.

The investigation of attitudes in the present study was limited to teachers. Since the role of other key stakeholders like parents are equally important in the process of inclusion, it is recommended that future research could be done on finding out the attitudes of other actors in inclusive education.

REFERENCE LIST

- AAMR 2002, *Definition of Mental Retardation*, American Association of Intellectual and Developmental Disabilities. Viewed on 20th May 2007 URL: http://www.aamr.org/Policies/faq_mental_retardation.shtml .
- Ajzen, I 1988, *Attitudes, Personality, and Behaviour*, Open University Press, Milton Keynes.
- Ajzen, I 2005, *Attitudes, Personality & Behaviour*, 2nd edn, Open University Press, New York.
- Baker, ET, Wang, MC & Walberg, HJ 1995, 'The effects of Inclusion on Learning', *Educational Leadership*, vol. 52, no.4, pp.33-35.
- Batsiou, S, Bebetsos, E, Panteli, P & Antoniou, P 2006, 'Attitudes and Intentions of Greek and Cypriot Primary Education Teachers towards Teaching Pupils with Special Educational Needs in Mainstream Schools', *International Journal of Inclusive Education*, No. 1, pp.1-9. Viewed on 6th April, 2007, URL: <http://dx.doi.org/10.1080/13603110600855739>
- Beirne, SM, Patton, JR, & Ittenbach, R 1994, *Mental Retardation*, Macmillan College Publishing Company, New York.
- Booth, T. & Ainscow, M (eds) 1998, *From them to Us: An International Study on Inclusion in Education*. RoutledgeFalmer, London.
- Bordens, KS & Abbott, BB 2005, *Research Design and Methods, a Process Approach*. 6th edn, McFrawHill.
- Brinker, RP & Thorpe, NE 1984, 'Integration of Severely Handicapped Students with the Proportion of IEP Objectives Achieved', *Exceptional Children*, 51, pp.168–175.
- Bryman, A 2004, *Social Research Mehtods*, 2nd edn, Oxford University Press, New York.
- Buell, MJ, Hallam, R, Gamel-MM & Scheer, S 1999, 'A survey of General and Special Education Teachers' Perceptions and In-Service Needs Concerning Inclusion', *International Journal of Disability, Development and Education*, 46, pp.143–156.
- Center, Y & Ward, J 1987, 'Teachers' Attitudes towards the Integration of Disabled Children into Regular Schools', *The exceptional child*, 34, pp. 41-52.
- Certo, N, Haring, NG, & York, R 1984, *Public School Integration of Severely Handicapped Students*, Brookes, Baltimore.
- Chow, P & Winzer, MM 1992, 'Reliability and Validity of a Scale Measuring Attitudes toward Mainstreaming', *Educational and Psychological Measurement*, Vol. 52 no.1, pp. 223-228.

- Clark, G, French, R & Henderson, H 1986, 'Attitude Development of Physical Educators Working with the Disabled', *Palaestra*, 1, pp. 26-28.
- Conaster, P, Block, M & Lepore, M 2000, 'Aquatic Instructor's Attitudes toward Teaching Students with Disabilities', *Adapted Physical Activity Quarterly*, Vol. 17, no.2, pp. 197-207.
- Cornoldi, C, Terreni, A, Scruggs, TE, & Mastropieri, MA 1998, 'Teachers' Attitudes in Italy after 20 Years of Inclusion', *Remedial and Special Education*, 19, pp. 350-356.
- CSIE 2008, *Index for inclusion: Developing Learning and Participation in Schools*, Centre for Studies on Inclusive Education, Viewed on 20th January, 2008, URL: <http://inclusion.uwe.ac.uk/csie/indexlaunch.htm>
- Curtis, CK 1985, 'Education Students' Attitudes toward Disabled Persons and Mainstreaming', *Alberta Journal of Educational Research*, 31, pp. 288-305.
- De Bettencourt, LU 1999, 'General Educator's Attitudes towards Students with Disabilities and their Use of Instructional Strategies: Implication for Training', *Remedial and Special Education*, 20, pp.27-35.
- De Vaus, D 1996, *Surveys in Social Research*, 4th edn, UCL Press, London.
- De Vaus, D 2002., *Surveys in Social Research*, 5th edn, Taylor & Francis Group, Routledge.
- Dunn, J & Fait, H 1989, *Special Physical Education*, 6th edn Wm C. Brown, Dubuque.
- Eagly, AH & Chaiken, S 1993, *The psychology of Attitudes*, Harcourt Brace College Publishers, New York.
- Engh, S 2003, *Inclusive Education in Mozambique: Primary School Teacher's Attitudes towards Inclusion*. Unpublished Master's Thesis, Oslo, University of Oslo, Department of Special Needs Education.
- Fishbein, M & Ajzen, I 1975, *Belief, Attitudes, Intentions and Behaviour: an Introduction to Theory and Research*, Addison-Wesley, Reading, Mass.
- Folson-Meek, LS, Nearing, JR, Groteluschen, W & Krampf, H 1999, 'Effects of Academic Major, Gender and Hands-on Experience on Attitudes of Pre-Service Professionals', *Adapted Physical Education Quarterly*, vol.16 no.4, 389-402.
- Forlin, C, Douglas, G & Hattie, J 1996, 'Inclusive Practices: How Accepting are Teachers?' *International Journal of Disability, Development and Education*, Vol.43, No.2, pp.119-133.
- Gall, MD, Borg, WR & Gall, JP 1996, *Educational Research: An Introduction*, Longman, New York.
- Gall, MD, Gall.JP & Borg, WR 2007, *Educational Research: An introduction*, 8th edn, Allyn and Bacon, Boston.
- Government of Uganda, 1995, *Constitution of the Republic of Uganda*, Kampala.

-
- Happe, D 1983, 'Behavioural Intervention: It doesn't do any good in your Briefcase', in Grimes, J, *Psychological Approaches*. Des Moines, Iowa: Iowa state Department of Education, pp.15-45.
- Hastings, RP, Hewes, A, Lock, S & Witting, A 1996, 'Do Special Education Needs Courses have any Impact on Students' Teachers Perception of Children with Severe Learning Difficulties?' *British Journal of special education*, 23, pp. 139-144.
- Heflin, LJ & Bullock, LM 1999, 'Inclusion of Students with Emotional/Behavioural Disorders: a Survey of Teachers in General and Special Education', *Preventing School Failure*, 43, pp. 103-124.
- Hegarty, S 1994, 'Integration and the Teacher', in Meijer, CW, Pijl, SJ & Hegarty S (Eds) *New Perspectives in Special Education. a six-country study of integration*. London, Routledge. 125-131pp.
- Hodge, R S & Jansna, P 1999, 'Effects of Contact time and Location of Practicum Experiences on Attitudes of Physical Education Majors', *Adapted Physical Activity Quarterly*, vol. 16 no.1, pp. 48-63.
- Ivey, J & Reinke, K 2002, 'Pre-Service Teachers' Attitudes toward Inclusion in a non-traditional Classroom', *Electronic Journal of Inclusive Education*, 1(6). Viewed on 20th March, 2008, URL: http://www.ed.wright.edu/prenick/julie_kathryn.htm.
- Janzen, L, Centre CE, Wilgosh, L & McDonald, L 1995, 'Experiences of Classroom Teachers Integration Students with Moderate and Severe Disabilities', http://www.aamr.org/Policies/faq_mental_retardation.shtml. Viewed 3rd February, 2008 URL: <http://www.ualberta.ca/jpdasddc/bulletin/articles/janzen1995.html>
- Jenkins, JR, Odom, SL, Speltz ML 1989, 'Effects of Social Integration on Pre-school Children with Handicaps'. *Exceptional Children*, vol. 55.
- Jobe, D, Rust JO & Brissie, J 1996, 'Teachers' Attitudes toward Inclusion of Students with Disabilities into Regular Classrooms', *Education*, 117, no.1, pp. 234-245.
- Kristensen, K, Omagor, M, Onen, N & Okot, D 2006, 'Opportunities for Inclusion? The Education of Learners with Special Educational Needs and Disabilities in Special Schools in Uganda', *British Journal of Special Education*, vol.33, no.3, pp.139-147.
- Lane, C, Kisadha, T & Napeyok, E 1995, *Unearthing the Pen: an Encouraging Event for the Support of Children in Karamoja, Report of a Pre-project Study*. Redd Barna.
- Larrivee, B, & Cook, L 1979, 'Mainstreaming: A Study of Variables Affecting Teacher Attitude', *Journal of Special Education*, vol.3, pp. 315-324.
- Luckason, R., & Reeve, A 2001, 'Naming, Defining and Classifying in Mental Retardation', *Mental Retardation*, vol. 39, pp. 47-52.
- Martinez, SR 2003, 'Impact of a Graduate Class on Attitudes toward Inclusion, Perceived Teaching Efficacy and Knowledge about Adapting Instruction for Children with Disabilities in Inclusive Settings', *Teacher Development*, vol. 7 no.3, pp. 473-494.

-
- Ministry of Education & Sports 1992, *The Government White Paper on Education Policy Review Commission*, Ministry of Education & Sports, Kampala.
- Ministry of Education and Sports 1998, *Guidelines on Policy, Roles and Responsibilities of Stakeholders in Implementation of Universal Primary Education: The way forward*, Centre for Applied Research in Development, Kampala.
- Ministry of Finance, Planning & Economic Development 1991, *The 1991 Uganda Population & Housing Census: Analytical Report*. Uganda Bureau of Statistics, Kampala.
- Ministry of Finance, Planning & Economic Development 2006a, *The 2002 Uganda Population and Housing Census Analytical Report: Gender and Special Interest Groups*. Uganda Bureau of Statistics, Kampala.
- Ministry of Finance, Planning & Economic Development 2006b, *The 2002 Uganda Population and Housing Census Analytical Report: A Bridged Version*, Uganda Bureau of Statistics, Kampala.
- Munaabi, G & Mutabaazi, E 2006, *Karamoja: Resurrecting the Pen; The Karimojong Demanding things be done their way*. International Rescue Committee. Viewed on 10th February, 2008, URL: www.Ugpulse.com/articles/daily/Heritage.asp?ID=430 .
- Omagor, LM, Atim, MS, Okot, D, Kiryahika, KM., & Eron, L 2002, *Including the Excluded: Meeting Diversity in Education: Example from Uganda*. UNESCO, Paris.
- Opdal, LR, Wormnæs, S & Habayeb, A 2001, 'Teachers' Opinions about Inclusion: A pilot Study in a Palestinian Context', *International Journal of Disability, Development and Education*, Vol. 48, no.2, pp.145-159.
- Parementor, TR 2004, 'Contribution of IASSID to the Scientific Study of Intellectual Disability: the Past, the Present and the Future', *Journal of Policy and Practice in Intellectual Disabilities*, vol.1, pp. 71-78.
- Praisner, L C 2003, 'Attitudes of Elementary School Principals toward the Inclusion of Students with Disabilities', *Exceptional Children* ,vol. 69 no. 2, pp. 135–145.
- Reynolds, PD 1982, *Ethics and Social Science Research*, Prentice -Hall.Inc, Englewood, Newjersey.
- Rizzo, L & Vispoel, T 1991, 'Physical Education Attributes and Attitudes toward Teaching Students with Handicaps', *Adapted Physical Activity Quarterly*, vol. 8 no.1, 4–11.
- Robson, C 2002, *Real World Research: Research for Social Scientists and Practioner Researcher*, 2nd edn, Oxford, Blackwell Publishing.
- Rustemier, S 2002, *Inclusion Information Guide*, Centre for studies on Inclusive Education, London.
- Rwabogo, MO 1994, *Districts Information Guide*, Fountain Publishers Ltd, Kampala.

-
- Sarason, SB & Doris, J 1979, *Educational Handicap, Public Policy, and Social History : a Broadened Perspective on Mental Retardation*, The Free Press, New York.
- Schroeder, SR, Gertz, G & Velazquez, F 2002, *Usage of the Term Mental Retardation: Language, Image and Public Education, Final Project Report*. Centre on Developmental Disabilities, University of Kansas.
- Schumm, JS & Vaughn, S 1995, 'Getting Ready for Inclusion: is the Stage Set?' *Learning Disabilities Research and Practice*, vol. 10, pp. 169–179.
- Scruggs, TE & Mastropieri, MA 1996, 'Teacher Perceptions of Mainstreaming/ Inclusion', A Research Synthesis, *Exceptional Children*, 63, pp. 59–74.
- Semmel, MJ, Abertnathy, TV, Butera, G & Lesser, S 1991, 'Teacher Perception of the Regular Education Initiative', *Exceptional Children*, vol. 58, pp. 9-23.
- Smith, MK. & Smith, KE 2000, 'I Believe in Inclusion, but ...: Regular Education Early Childhood Teachers' Perceptions of Successful Inclusion', *Journal of Research in Childhood Education*, vol. 14, pp. 161–180.
- Stancic, Z 2000, *Teachers 'Attitudes toward Teaching as a Determinant of their Readiness for Additional Professional Special Education*. Paper Presented at ISEC, Manchester, UK, 24–28 July 2000, viewed on 10th February, 2008. URL: http://www.isec2000.org.uk/abstracts/papers_s/stancic_1.htm
- Turnbull, R, Turnbull, A, Wareen, S, Eideman, S, & Marchand, P 2002, 'ShakeSpear, Redux or Romeo and Juliet Revisited: Embedding a Terminology and Name Change in a New Agenda for the Field of Mental Retardation', *Mental Retardation*, Vol. 40 no. 1, pp. 65-70.
- Uganda Bureau of Statistics 2006, *The 2002 Uganda Population Housing Census Report Analytical Report: Gender and Special Interest Groups*, UBOS, Kampala.
- UNESCO 1990, *Declaration on Education for All*. Jomtien. Viewed on 20th February, 2008. URL: http://www.unesco.org/education/efa/ed_for_all/background/jomtien_declaration.shtml
- UNESCO 1994, *The Salamanca Statement and Framework for Action on Special Needs Education, World Conference on Special Needs Education: Access and Quality*, Ministry of Education and Science, Salamanca.
- UNICEF 2006, Uganda: *UNICEF Humanitarian Situation Report*, Viewed on 4th February, 2008, URL: www.internal-displacement.org/8025708f004c.
- UNICEF 2007, *Uganda to Expand Back-to School Program to the War Affected North*, Viewed on 8th February, 2008, URL: http://www.unicef.org/media/media_39239.html
- UNISE. 2002, *Distance Learning, Special Needs Education: Inclusive Education*, Module 5, Uganda National Institute of Special Education, Kampala.

United Nations 2004, '*Children Leave Cattle Battles for School Enticed by Meal*', World Food Program. Viewed on 4th Feb. 2008, URL:
<http://www.reliefweb.int/rw/rwb.nsf/AllDocsByUNID/5e9579a4c3e87ac185256e86005ba39e> .

United Nations 2006, Convention on the Rights of Persons with Disabilities, Prepared by the UN Web Services Section, Department of Public Information, United Nations. Viewed on 20th January, 2008, URL:
<http://www.un.org/disabilities/convention/conventionfull.html>.

Urquhart, ME 1999, '*Teachers' Attitudes toward the Inclusion of Students with Disabilities in Regular K-6 Classrooms in a Post McRae Era*', Paper presented at the Conference of Master of Teaching Program of the University of Sydney, Sydney. Viewed on 5th January, 2008, URL:
http://alex.edfac.usyd.edu.au/archived%20conferences/conference99/student_papers/Urquhart.htm

Villa, RA, Thousand, JS, Myers, H & Nevin, A 1996, 'Teacher and Administrator Perceptions of Heterogeneous Education', *Exceptional Children*, 63, pp. 29–45.

Zambelli, F & Bonni, R 2004, 'Beliefs of Teachers in Italian Schools Concerning the Inclusion of Disabled Students: a Q-Sort Analysis', *European Journal of Special Needs Education*, vol. 19, No. 3, pp. 351-366.

APPENDICES

Appendix 1: Questionnaire for Primary School Teachers

Instruction

Recent laws require that children with special needs be included into the ordinary school system to the extent that such inclusion is possible. Educators have long realised that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this questionnaire is to obtain information that will help primary school systems in maximising the classroom teachers' effectiveness in teaching children with intellectual disabilities.

SECTION 1: Background Variables

In this section, you are requested to give some basic information about yourself. Please tick your response to the following items. Do not write your name or the name of your school.

1. Gender:

1. Male	2. Female
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2. Class level taught:

1. Lower primary	2. Middle primary	3. Upper primary
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3. Number of pupils in your class

pupils
--	-------------

4. Training level in Special Needs Education

1. Untrained	2. Diploma	3. Bachelor's degree
4. Attended short seminars and workshops in SNE		

5. Teaching experience

	I have now taught for.....years
--	---------------------------------

6. Have you taught pupils with intellectual disabilities this year or before?

	1. No, never before	2. Yes
--	---------------------	--------

7. Do you have any pupil(s) with intellectual disabilities in the class you teach?

1. Yes	2. No	3. I am not sure
--------	-------	------------------

8. If Yes, how many pupils with intellectual disabilities are in your class?

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SECTION 2: Teachers' opinions

Please tick the box under the column that best describes your agreement or disagreement with the following statements. There are no correct or wrong answers; the best answers are those that honestly represent your feelings. Tick out only one box from each question or statement.

Scale: SA=Strongly Agree A=Agree D=Disagree SD=Strongly Disagree

	1 Strongly agree	2 Agree	3 Disagree	4 Strongly disagree
1. Many of the things teachers do with regular pupils in the ordinary classrooms are appropriate for pupils with intellectual disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The needs of pupils with intellectual disabilities can best be served through special, separate classes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The behaviour of pupils with intellectual disabilities generally requires more patience from the teacher than does the behaviour of an ordinary child.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The challenge of being in a regular classroom will promote the academic growth of pupils with intellectual disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The extra attention needed by pupils with intellectual disabilities will be to the disadvantage of ordinary pupils.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Inclusion offers mixed group interaction which will foster understanding and acceptance of differences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. It is difficult to maintain order in a regular classroom that includes pupil with intellectual disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Regular teachers possess a great deal of expertise required to teach pupils with intellectual disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The behaviour of pupils with intellectual disabilities will set a bad example to other pupils.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Isolation in a special class has negative effect on the social and emotional development of a pupil with intellectual disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The pupils with intellectual disabilities will probably develop academically more rapidly in a special classroom than in a regular classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Most pupils with intellectual disabilities make inadequate attempts to complete their assignments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-
13. Inclusion of pupils with intellectual disabilities will require significant changes in regular classroom practices.
14. Most pupils with intellectual disabilities are well behaved in the regular classroom.
15. The contact regular class pupils have with pupils with intellectual disabilities in the regular school may be harmful.
16. Regular classroom teachers have sufficient training to teach pupils with intellectual disabilities.
17. Pupils with intellectual disabilities will monopolise the regular teachers' time.
18. Including the pupil with intellectual disabilities will improve his or her social independence.
19. It is likely that the pupil with intellectual disabilities will show behaviour problems in a regular classroom setting.
20. Effective teaching of pupils with intellectual disabilities is better done by resource room or special teachers than by regular-classroom teachers.
21. The inclusion of pupils with intellectual disabilities will be beneficial for regular pupils.
22. Pupils with intellectual disabilities need to be told exactly what to do and how to do it.
23. Inclusion is likely to have a negative effect on the emotional development of pupils with intellectual disabilities.
24. Increased freedom in the classroom creates too much confusion.
25. The pupil with intellectual disabilities will be isolated by regular classroom pupils.
26. Parents of pupils with intellectual disabilities present no greater problem for a classroom teacher than those of ordinary children.
27. Inclusion of pupils with intellectual disabilities will require extensive retraining of regular teachers.

28. Pupils with intellectual disabilities should be given every opportunity to function in the regular classroom setting, where possible.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

29. Pupils with intellectual disabilities are more likely to create confusion in the regular classroom.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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30. The presence of a pupil with intellectual disabilities will promote acceptance of differences on the part of regular pupils.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

SECTION 3: Willingness to include pupils with Intellectual disabilities in regular schools

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

31. I am determined to teach in a class of pupils with intellectual disabilities.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

32. I believe that pupils with intellectual disabilities can benefit academically from properly adapted instruction.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

33. I believe that I possess the basic knowledge and skills necessary to teach pupils with intellectual disabilities in a regular classroom.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

34. I accept that it is the joint responsibility of all teachers to teach pupils with intellectual disabilities together with ordinary pupils in regular schools.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

35. Fellow teachers are likely to support me if I teach in a class of pupils with intellectual disabilities.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

36. Parents of children with and without intellectual disabilities are likely to support me if I teach in a class of children with intellectual disabilities.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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37. I am generally very concerned about what other people say or feel towards what I do in school.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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38. With or without the support of fellow teachers and/or parents, I am still determined to teach in a class of pupils with intellectual disabilities in a regular school.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

39. It is possible for me to teach pupils with mild intellectual disabilities in a regular school.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

40. It is possible for me to teach pupils with severe intellectual disabilities in a regular school.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Appendix 2: Letter of Introduction from UIO



**UNIVERSITY
OF OSLO**

Department of Special Needs Education

P.O.Box 1140, Blindern
N-0318 Oslo
NORWAY

Your ref:
Our ref: 20/07 ST/db
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Date: June 5. 2007

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FACULTY OF EDUCATION

TO WHOM IT MAY CONCERN:

This is to certify that **OJOK, Patrick**, date of birth 21.03.1974, is a full-time student pursuing a course of study at the Department of Special Needs Education at the University of Oslo, Norway, leading to the degree of Master of Philosophy in Special Needs Education (M. Phil. SNE).

This is a continuous two-year programme run on the "sandwich" principle, which involves periods of study and field work/research in both Norway and the home country. The student has concluded the initial 11-month period in Norway and will be returning to the home country in July 2007 to continue full-time studies/research until 1 January 2008 when s/he returns to Norway for the final part of the degree. The period of study will be completed at the end of May 2008.

The main responsibility for supervising the research, developmental work and thesis remains with the Department of Special Needs Education, University of Oslo, Norway. However, we would kindly request that the relevant authorities give the student the access required to the schools and educational establishments necessary in order to undertake field work and research. We would also be most grateful for any assistance that is afforded to the student which enables her/him to carry out this work, particularly the use of facilities such as access to telephone, fax, e-mail, computer services and libraries at the various educational establishments.

Yours sincerely

Ass. Professor Steinar Theie
Academic Head of International Master's Programme
Department of Special Needs Education

Department of Special Needs Education
Faculty of Education
University of Oslo, Norway

Institutt for spesialpedagogikk
Det utdanningsvitenskapelige fakultet
Universitetet i Oslo
Norge

Appendix 3: Permission from the District Education Officer



THE REPUBLIC OF UGANDA

ABIM DISTRICT LOCAL GOVERNMENT
OFFICE OF THE DISTRICT EDUCATION OFFICER
P. O. BOX 3 – ABIM (UGANDA)

12th September 2007.

To whom it may concern


Dear sir/Madam,

RE: MR. OJOK PATRICK

Mr. Ojok is currently a Master's Degree student at the University of Oslo, Norway. He would like to access some sampled schools in the District to collect data for his research.

This is to introduce him to your office and request for any possible support that he may need in relation to his research.

Yours faithfully,


DISTRICT EDUCATION OFFICER
ABIM DISTRICT
DATE
OCERO GEORGE WALTER
AG. DISTRICT EDUCATION OFFICER – ABIM

Appendix 4: Request for Permission to Conduct Research from Schools

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Appendix 4: Request for Permission to Conduct Research from Schools

Kotido Primary Teachers' College

P.O. Box 8, Kotido District

13th September, 2007

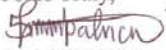
Dear Sir/Madam,

RE: PERMISSION TO CONDUCT RESEARCH IN YOUR SCHOOL

I send you warm greetings and congratulate you for the work you are doing for your school. I am currently a Master's degree student at the University of Oslo, Norway. As part of the course, I am required to do research in the home country. My research problem is on primary school teachers' attitudes and willingness to include pupils with intellectual disabilities into ordinary schools in Abim District. The research is a district wide survey whereby twelve (12) schools selected from every sub county and the town council will participate. The schools were sampled randomly so that each school had an equal chance of being selected for the study. When the random sampling process was done, your school emerged as one of the 12 schools to participate in the study. All the teachers in every sampled school, including the head teacher, will participate in the study by completing a questionnaire. The questionnaire will be group administered so that the investigator gets the opportunity to clarify some concepts that may not be obvious to the teachers. In order to administer the questionnaire to teachers as a group, each school is kindly requested to appoint a time where all teachers can converge in one place. The time should not interfere with the normal teaching time. Filled questionnaire will be collected and returned same day. All information provided for the purpose of this research will be treated with utmost confidentiality. It is therefore needless for teachers to write their names or names of their schools on the questionnaire.

I hope that you will grant me permission to collect data from teachers in your school.

Yours Truly,


Patrick OJOK

Appendix 5 : Letter of Informed Written Consent

Dear Teacher,

RE: Informed Written Consent to Participate in Research

I salute and thank you for the great work that you are doing in your school as a fellow teacher. I am a student at the University of Oslo, Norway pursuing a Master's degree course in Special Needs Education. I am currently at home in Uganda to conduct research as one of the requirements for the course. The focus of my research is on primary teachers' attitudes and willingness to include pupils with intellectual disabilities into ordinary schools in Abim district. Data will be collected through questionnaires.

Participating schools were randomly sampled so that each school in the district had an equal chance of being selected for the study. All the teachers in every sampled school are requested to take part in the study by completing a questionnaire that will be brought to schools and administered to them as a group. However, individual teachers may choose to participate or not, and to withdraw from the study voluntarily, if they reasonably think so. Participants are not required to write their names or school names on the questionnaire. All information provided will solely be used for research purpose and shall be treated with utmost confidentiality.

On your part, you are requested to decide voluntarily by signing below if you accept to be a participant in this research. Please do not write your name in this letter.

.....

Research Participant (signature only)

Appendix 6: Letter of Appreciation to Schools

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Appendix 6: Letter of Appreciation to Schools

KOTIDO PRIMARY TEACHERS' COLLEGE

P.O. BOX 8, KOTIDO DISTRICT

25TH NOVEMBER, 2007.

The Head Teacher,

The Teachers of

.....School

Dear Sir/Madam,

RE: THANK YOU

I am writing back in connection with data collection for my research in which your school participated. Data collection may not usually be an easy task for researchers. In my case, it was very successful because I got maximum support and cooperation both from you as a school administrator and from teacher colleagues in your school, all of whom willingly participated in the research. Without your support and cooperation during data collection, I would have done nothing much on my own.

I would like therefore to convey my sincerest gratitude to all the teachers, whose efforts made it possible for me to obtain data for my study from the different schools that I visited. I hope that I finish the final part of my research successfully when I return to Norway in January 2008.

May God bless your struggles in the service of our country.

I wish you all a Merry Christmas and Happy New year 2008.

Yours sincerely,-



Patrick OJOK

Appendix 7: Factor Analysis

Table 24: Factors Analysis

Item	Factor 1	Factor 2	Factor 3	Factor 4
Inclusion will have negative effect on emotional development of pupils with intellectual disabilities	,708			
Pupils with intellectual disabilities will most likely show behaviour problems in an ordinary class	,644			
Increased freedom in the classroom will create too much confusion	,609			
The behaviour of pupils with intellectual disabilities will set a bad example to other pupils	,601			
The Contact pupils with intellectual disabilities have with ordinary pupils may be harmful	,390			
The needs of the pupil with intellectual disability is best served through special, separate classes		,767		
The pupil with intellectual disability will develop academically more rapidly in special than in ordinary classes		,556		
Things done by teachers in ordinary classroom are appropriate for pupils with developmental disabilities		,534		
Effective teaching best done by resource room or special teachers		,494		
Isolation in a special class negatively affects the socio-emotional development		,452		
Inclusion of pupils with intellectual disabilities inclusion will foster acceptance and understanding			,680	
Presence of pupils with intellectual disabilities will promote acceptance of differences on the part of ordinary pupils			,667	
Inclusion will be beneficial to the ordinary pupils			,451	
Being in an ordinary class will promote academic growth of pupils with intellectual disabilities			,377	
Pupils with intellectual disabilities will monopolise the ordinary teacher's time				,720
Extra attention needed for pupils with intellectual disability is to the disadvantage of ordinary pupils				,544
Inclusion will require significant changes in ordinary school curriculum				,528
Pupils with intellectual disabilities make inadequate attempts to complete their assignments				,431

Appendix 8: Reliability Analysis of the Attitude scale

Items	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
i10s things done by teachers in ordinary classrooms are appropriate for pupils with intellectual disabilities	59,526	,186	,742
i13s Being in ordinary class will promote the academic growth of pupils with intellectual disabilities	59,929	,131	,746
i15s Inclusion of pupils with intellectual disabilities will foster acceptance and understanding	58,617	,218	,740
i19s Isolation in a special class negatively affects the emotional growth of pupils with intellectual disabilities	59,519	,129	,748
i23s Pupils with intellectual disabilities are well behaved in the ordinary classroom	57,003	,376	,729
i30s Inclusion of pupils with intellectual disabilities will be beneficial to ordinary pupils	58,077	,267	,737
i37sPupils with intellectual disabilities should be given opportunity to function in the ordinary class where possible	60,902	,120	,744
i39s The presence of pupils with intellectual disabilities will promote acceptance of difference on the part of ordinary pupils	60,290	,147	,744
i11 Best served through special, separate classes	56,569	,358	,730
i14 Extra attention need is to the disadvantage of ordinary children	57,658	,258	,738
i16 Difficult to maintain order in an inclusive class of children with developmental disabilities	53,894	,556	,714
i18 Behaviour will set a bad example to other pupils	56,523	,354	,730
i20 Will develop academically more rapidly in special than in ordinary classes	57,572	,318	,733
i21 Make inadequate attempts to complete their assignments	58,256	,327	,733
i22 Inclusion will require significant changes in ordinary school curriculum	58,572	,296	,735
i24 Contact with ordinary pupils may be harmful	56,977	,355	,730
i26 Will monopolise the ordinary teacher's time	58,885	,228	,739
i28 Will most likely show behaviour problems in an ordinary class	56,845	,411	,727
i29 Effective teaching best done by resource room or special teachers	58,477	,234	,739
i32 Negative effect on their emotional development	58,692	,222	,740
i33 Increased freedom in the classroom will create too much confusion	56,252	,349	,730
i34 Will be isolated by ordinary pupils	58,224	,316	,733
i38 More likely to create confusion in the ordinary classroom	55,272	,456	,722

Appendix 9: Reliability Analysis for the Willingness Sub-scale

Cronbach's Alpha	Number of Items
,732	8

Item	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
i40s I am determined to teach in a class of pupils with intellectual disabilities	11,988	,444	,700
i41s Pupils with intellectual disabilities can benefit from properly adapted instruction	11,985	,460	,698
i42s I possess the basic knowledge and skills to teach in the ordinary class of pupils with intellectual disabilities	11,739	,409	,708
i43s It is the joint responsibility of all teachers to teach pupils with intellectual disabilities in the ordinary schools	12,079	,377	,714
i44s Fellow teachers are likely to support me if I teach pupils with intellectual disabilities in ordinary classes	12,307	,450	,701
i45s Parents are likely to support me if I teach pupils with intellectual disabilities in the ordinary classes	12,734	,249	,741
i47s I am determined to teach pupils with intellectual disabilities in ordinary classes with or without the support of teachers and/or parents	10,664	,615	,661
i48s It is possible for me to teach pupils with severe intellectual disabilities in the ordinary class	12,429	,419	,706