

UNIVERSITY OF CAPE COAST

FACTORS AFFECTING EFFICACY OF ASSESSMENT CENTRES IN
ASSESSING CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN
WINNEBA, HOHOE AND ACCRA CENTRES

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2010

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BY

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Thesis submitted to the Department of Educational Foundations of the Faculty of Education, University of Cape Coast, in partial fulfilment of the requirements for award of Master of Philosophy Degree in Special Education

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

Name: Setumte Dodzi Ametewee

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: Date:

Name: Prof. Monday Tommy Joshua

Co-Supervisor's Signature: Date:

Name: Dr. Emmanuel Kofi Gyimah

ABSTRACT

This research was designed to investigate the factors affecting efficacy of assessment centres in assessing children with special educational needs in Winneba, Hohoe and Accra centres. One of the major research questions that guided the study examined the material and logistics used in assessing children with special educational needs in the assessment centres. One hundred and twenty respondents sampled took part in the study. Structured questionnaires and interview guide were used to elicit information from heads and assessment team and parents respectively. The responses to the research instruments were organised and analysed using the SPSS version 16 software package.

The statistical tools used to present the results were frequency counts, percentages, chi-square and ANOVA. The findings obtained showed that (95%) of heads and assessment team members (84) representing a significant number (79) employed the appropriate procedures such as screening, pre-referral services, eligibility, monitoring and evaluation in assessing children with special educational needs. However, the materials and logistics such as audiometer, otoscope and tympanometer needed to run the centres were inadequate.

On the basis of the findings, recommendations were made for implementation such as the following: Ministry of Education should provide in-service training for the staff of Assessment Centres; the Ghana Education Service should be more responsive in the building up of these Centres by providing funds for their activities, materials and logistics as well as training more audiologists in the medical institutions.

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DEDICATION

To My mother, Madam Julie and Grandma Aggie and all my siblings.

In memory of Mr Maxwell Eyram Kaleku and Nutifafa Woanyah

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CHAPTER ONE

INTRODUCTION

Background to the Study

Assessment centres are supposed to enhance the educational opportunities of children with disabilities and Special Educational Needs (SEN) (Barnados, 2006). This according to Barnados (2006) is done through the provision of awareness for early identification and detection of disability, for the promotion of appropriate medical interventions, therapies, and educational and vocational placements. The centres facilitate prompt identification and detection of early childhood disabilities and special educational needs. They provide comprehensive and diagnostic assessment of children suspected with childhood disabilities and special educational needs, and create opportunities for appropriate educational placement (Barnados, 2006). Furthermore, assessment centres make referrals for appropriate medical intervention, and create and promote the active participation of parents and guardians of children with disabilities and special educational needs in the education of their wards, and in the therapies prescribed for them. They also create and sustain public awareness on early childhood disabilities and special educational needs, issues and services.

McLoughlin and Lewis (1994) define assessment as “the systematic process of gathering educationally relevant information to make legal and

instructional decision about the provision of special service'' (p. 4). The type of information collected should enable teachers to design instructional programmes that would help the individual to succeed academically, physically, psychologically and socially (Gyimah, 2007).

Experts in the field of Special Education agree that children with SEN have unique characteristics that are different from most children of their age and sex (Anderson, 1991). They require educational and supportive services that are in most cases different and may not be needed by most other children. Basically, they are children with various disabilities some of whom may also be intellectually gifted and/or possess unusual talents for assessment centre services (Anderson, 1991).

One of the purposes of assessment is to enable individuals to participate in a comprehensive assessment regime (Bieri, 2007). The comprehensive assessment of a resident combines the ongoing and naturalistic observations by the clinical staff with the data obtained from objective instruments that are administered and interpreted by the assessment staff (Bieri, 2007). According to Bieri (2007), the assessment process culminates in a summary report that includes the resident's scores on the tests and evaluations from the clinical staff, a comprehensive review of the official file, and information from the structured interview.

The assessment's purpose is to provide detailed information for the Department of Correction's Classification Committee so that the Department of Corrections' personnel can determine the appropriate placement option for the

resident (Bieri, 2007). The assessment data are also used to formulate the resident's master treatment plan prior to his departure from the facility.

In Ghana, the National Assessment and Resource Centre for Children with Disabilities and Special Educational Need (NARC) at Achimota in Accra was the first to be established in May 1975. It is a unit under Special Education Division of the Ghana Education Service (GES). Subsequently, other centres were established to take care of the needs of children with SEN in other parts of the country including Hohoe Assessment Centre Hohoe Assessment Centre (Educational-Hearing), 37 Military Hospital (ENT-Hearing), Okomfo Anokye Hospital (ENT-Hearing), Jamasi School for the Deaf (Educational-Hearing) and Korle-bu Eye Clinic (ENT-Visual). Primarily, the assessment centres are mandated to augment the efforts of the Ministry of Education by providing the Ghanaian public and families with children with SEN, adequate information on identification and confirmation of the existence of disabilities among children and adults and making appropriate referrals for management.

The mission statement of the assessment centres is to enhance the educational opportunities of children with disabilities and special educational needs, through the provision of awareness for early identification and detection, for the promotion of appropriate medical interventions and educational and vocational placements.

Some of the objectives of assessment centres include the following:

1. To facilitate prompt identification and detection of early childhood disabilities and special educational need.

2. To provide comprehensive and diagnostic assessment to all children suspected with childhood disabilities and special educational needs.
3. Provision of opportunities for appropriate educational placement.
4. Make referrals for appropriate medical interventions.

Several services are offered at the assessment centres. Some of which are screening, diagnostic assessment, educational placement, referral for medical intervention and remedial programmes for learning disabled. Disabilities in children are a very critical thing. Some disabilities are very difficult to detect because they can either be permanent or temporary, progressive or retrogressive and hidden or manifested. It is for these reasons that the Winneba, Hohoe and Accra assessment centres should be designed to assist in detecting handicapping problems right at the onset. The centres, primarily, must determine the child's special educational needs by specifying non-educational provision needed if the child is to benefit from rehabilitation or any form of special education.

Statement of the Problem

Despite the important roles that assessment centres are expected to play in the education of children with SEN, there is the controversy over whether assessment centres in Ghana are actually playing their expected roles; and if they are, the extent they are playing the roles. A tour by the researcher to the National Assessment Centre in Achimota in Accra had indicated that parents of children with SEN have been complaining about the services of the assessment centre, alleging that it had not been doing much to help their wards, both academically

and socially. This implies that the parents of children with SEN are not satisfied with the services provided by the centre.

Appropriate assessment of children with SEN for early identification and detection is very important and when assessment is done thoroughly and it covers all the academic and social domains of the child's life, it enables professionals to deliver appropriate services to boost the child's development. When it is not done thoroughly, appropriate interventions may not be possible to address specific problems.

Students with mild disabilities and others at risk for academic learning problems are more likely to succeed when instruction is presented using the principles of direct learning (Kelly & Vergason, 1985). As Lewis and Doorlag (1995) point out, effective instruction of students with special educational needs can take place in any setting, general education or special, if teachers "(a) engage in teacher-directed instructions, (b) provide students with opportunities for active academic responding, (c) use high rates of contingent reinforcement, and (d) adapt teaching strategies to accommodate individual differences" (p. 36).

This assessment is usually carried out at assessment centres. For assessment centre to succeed in executing this mandate, they require human and material resources (Kelly & Vergason, 1985). If an assessment centre has these human and material resources, and is successful in giving assessment results of a child with SEN that are useful in planning, the educational, vocational and psychological development of that child, then that centre can be said to have an efficacy that is dependable and which gives hope to Ghanaians. However, when

an assessment centre exists only in name and lacks human resources and materials then it has a questionable efficacy, and may exist to further compound the problem of child with SEN, their parents and guardians and the Ghanaian society at large. Thus, the assessment centres in Ghana are either executing their mandate, particularly in the assessment of children with SEN or they just exist in name and are not fulfilling the purposes for which they were established. In view of these observations, what factors affect the efficacy of assessment centres as it pertains to Winneba, Hohoe and Accra Centres? Seeking answers to this question pose a problem that this study seeks to address.

Purpose of the Study

This study was basically designed to find out factors affecting efficacy of Assessment Centres for children with Special Education Needs. In other words, the study seeks to examine the extent to which Assessment Centres in Ghana, particularly Winneba, Hohoe and Accra Centres meet their set objectives. The specific objectives of the study were to;

1. Examine the kinds of materials and logistics that are available in assessment centres for assessing children's SEN.
2. Examine the procedures employed in assessment centres in assessing children with special educational needs.
3. Identify the sources of funding for assessment centre's work and services.
4. Examine the support systems available for assessment centres.

5. Examine the procedures adopted in assessment centres in placing children with SEN in educational settings.
6. Examine the extent to which parents are involved in the education of their children with SEN.
7. Determine the challenges confronting the assessment of children with SEN at the assessment centres.

Research Questions

The following questions have been formulated to guide the study involving Winneba, Hohoe and Accra Centres:

1. What are the materials and logistics used in assessing children with SEN in Assessment Centres under study?
2. What are the procedures employed in assessing special educational needs at the Assessment Centres?
3. What are the sources of funding in assessing SEN?
4. What support systems are available for Assessment Centres under study?
5. What are the procedures involved in placing children with SEN in educational settings at the Assessment Centres?
6. To what extent are parents involved in the education of their children with SEN?
7. What are the challenges confronting the Assessment of children with SEN at the Assessment Centres?

Research Hypotheses

Three research hypotheses were postulated and tested.

Alternative Hypothesis

1. There is a significant relationship between the Assessment Centres and the availability of materials and logistics.
2. There is a significant relationship between the location of the Assessment Centres and their sources of funding.
3. There is a significant difference in the supply of materials by parents across the three centres.

Null Hypothesis

1. There is no significant relationship between the Assessment Centres and the availability of materials and logistics.
2. There is no significant relationship between the location of the Assessment Centres and their sources of funding.
3. There is no significant difference in the supply of materials by parents across the three centres.

Significance of the Study

It is hoped that the study will help identify the challenges affecting the Assessment Centres for children with SEN. It is generally believed that most parents become grieved when they are informed of their children having SEN.

The result emanating from this study would help:

First, the Assessment Centres identify specific types of services they are supposed to render to children with special Educational Needs (SEN). Secondly, the parents of children with special educational need to determine the extent to which they can demand service from Assessment Centres. Thirdly, with improvement in materials and logistics, proper procedures, and adequate parental involvement, Ghana Education Service (GES) and other stakeholders in the education of children with SEN would be satisfied with the services of the Assessment Centres.

Fourthly, it would draw attention of parents, philanthropists, voluntary agencies, NGOs and government to the difficulties involved in the assessment of children with special educational needs, namely the lack of equipment, material and personnel and the need to provide funds to promote assessment of children with special educational needs (SEN). Furthermore, the study may complement existing literature on the assessment of children with special educational needs (SEN) as well as serve as reference for those who would like to make in-depth study on the assessment of children with SEN.

Finally, this study may draw the attention of stakeholders to the factors that affect efficacy of Assessment Centres for children with SEN. The Ghana Education Service (GES), Universities and other stakeholders in education would be able to appreciate the enormity of the role of Assessment Centres and thus, make provision for them in their various institutions and also remunerate them accordingly. It is therefore hoped that the study will contribute immensely to the formulation of policies with regards to issues of assessment centres in Ghana.

Delimitation

This study was delimited to heads and assessment teams at the three assessment centres selected. They are Winneba Assessment Centre, Hohoe Assessment Centre and the National Assessment and Resource Centre for children with SEN in Achimota-Accra. The study was also restricted to variables such as materials and logistics, assessment procedures, sources of funding, support systems and parental involvement.

Limitations

Some of the problems encountered in the course of the study include:

First, the inability to achieve a 100 per cent response rate due to the fact that some members of the assessment team did not return the completed questionnaires or respond to all the items on the questionnaire. Thus, response rate was 90 per cent. Second, the number of parents or guardians interviewed was not representative. Third, some of the parents interviewed did not fully cooperate in providing answers to items on the interview guide. Lastly, no observation was done for purposes of verification.

Definition of Terms

Efficacy – This refers to the availability and use of human and material resources in providing optimum assessment results.

Assessment Centre – This refers to the place where diagnosis and mediation of learning problems are addressed.

Special Education Needs (SEN) – This refers to unique learning needs of exceptional children.

Organisation of the rest of the Study

The focal point of this study was on the factors affecting efficacy of assessment centres in assessing children with special educational needs in Winneba, Hohoe and Accra Centres. Chapter One covers the background to the study, statement of the problem, purpose of the study and research questions. In addition, the significance of the study, delimitation, limitations, definition of terms and organisation of the study are included.

Chapter Two reviews literature related to the factors affecting efficacy of assessment centres in assessing children with special educational needs. The historical background of assessment centres for children with special educational needs is also reviewed.

Chapter Three describes the methodology of the study, the research design, population and sample and sampling procedure. The research instrument, pilot testing, validity and reliability, data collection procedure and data analysis plan of the study are also described.

Chapter Four presents the findings of the study including statistical methods, research questions analysed and the discussions of the results.

Chapter Five covers the summary of the research process and findings, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews previous works done on important issues relating to the study. It provides a summary of the relevant literature used in the study. The chapter also discusses the major concepts and theories relating to the study by examining existing materials on the historical background of special educational needs and assessment centres for children with special educational needs. Related studies on assessment centres and critiques of theories on special educational needs have also been discussed under this section.

Related literature review is presented under the following sub-headings:

1. Background to Special Educational Needs (SEN)
2. Theories on Special Education Needs and Assessment centres
3. Assessment Centres for Special Education Needs
4. Historical background of Assessment Centres for Children with Special Educational Needs
5. Identification and Assessment of Children with Special Educational Needs
6. Related Studies on Assessment Centres for Special educational Needs
7. Different Types of Educational Assessment Tests
8. Parents' Involvement in the Assessment Process
9. Summary of Literature Review

Background to Special Educational Needs and Assessment Centres

In the past 10 years, disability issues have become the major concern for advocacy groups, teachers, school administrators, and policy makers in many countries including Ghana. There is much work currently being done in many countries in order to find the most appropriate placement for persons with disabilities, particularly in the areas of education, training and employment. In other words, the issue of where to teach children with special educational needs (SEN) and disabilities has been a great concern to countries.

Education for children and young people who have special educational needs is an area where there have been major changes in thinking and policy direction in the last twenty years or so (as cited in Cleaver, 2000). Several reviews have implications for special educational needs provision. The education of all children is high on the global agenda and reflected in the publication of a range of international policy initiatives over the last two decades (Cleaver, 2000). The World Declaration on Education for All (EFA) and the Salamanca Statement (UNESCO, 1994), among others, have endorsed a commitment to good quality education for all children in the special educational setting.

Some children find it much harder to learn than other children of the same age. They may need extra help in school. These children are said to have special educational needs. A number of pupils will have special needs some time during their school life. These can range from temporary to more complex or permanent needs. Most of these can be met through careful planning by the child's school, but a small number of children with more complex or long-term needs may need

extra resources. It is important to identify special educational needs as early as possible through assessment. The term special educational needs (SEN) emerged from the 1978 report of *Warnock's Committee of Enquiry into the Education of Handicapped Children and Young People* (USA, Department of Education and Science, 1978). Special educational needs replaced the former statutory categories of handicap and implied that as many as one in five children could experience special educational needs at some point in their school career.

According to UNESCO (1986), special education is defined as a form of education provided for those who are not achieving, or are unlikely to achieve through ordinary educational provision at the levels of educational, social and other attainments appropriate to their age, and which has the aim of furthering their progress towards these levels. Thus, a child is said to have Special Educational Needs if he or she has a learning difficulty which calls for special educational provision to be made for him or her.

According to Hayford (2000), the relatively smaller group of children with more severe impairments who have special educational needs that are not being met. In other words children have a learning difficulty if they: (a) have a significantly greater difficulty in learning than the majority of children of the same age; or (b) have a disability which prevents or hinders them from making use of educational facilities of a kind generally provided for children of the same age in schools within the area of the local authority; or (c) are under compulsory school age and fall within the definition at (a) or (b) above or would do so if special educational provision was not made for them.

The term "special educational needs" also covers children who face barriers in their ability to learn, including dyslexia, dyspraxia, autism, Asperger syndrome and attention-deficit hyperactivity disorder (ADHD) (Ahlgrim-Delzell & Spooner, 2005). However the term also refers to children with moderate learning disabilities and physical disabilities (such as hearing, motor and visual disabilities).

A key aspect of working in the field of SEN is to identify individual needs and be responsible for creating a safe, stimulating and supportive learning environment that enables a child to succeed in his learning (Ahlgrim-Delzell & Spooner, 2005). A pupil with SEN is entitled to receive full-time education that is appropriate to his needs. This applies to children and young people between the ages of 2 and 19 (Ahlgrim-Delzell & Spooner, 2005).

Special education is the education of students with special needs in a way that addresses the students' individual differences and needs. Ideally, this process involves the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, accessible settings, and other interventions designed to help learners with special needs achieve a higher level of personal self-sufficiency and success in school and community than would be available if the student were only given access to a typical classroom education.

Additional definition of special educational need is by the disability law of Ghana, (2006). According to this law, a pupil is defined as having Special

Educational Needs (SEN) if he or she has a learning difficulty which requires special educational provision to be made for him or her.

The concept of an 'assessment centre' was developed by the New Jersey Department of Corrections in 1967 in the United States of America as a method of providing a "step down" process for male State prisoners who had attained full-minimum status (Berdine & Meyer, 1987). The centres were designed to provide relatively brief (60 to 90 days) placements in a secure setting. As soon as the inmate arrived at the assessment centre, he was no longer addressed as an inmate; rather he was addressed as a resident (Berdine & Meyer, 1987).

While the difference in the terms may be viewed as a question of semantics, the change served as a constant reminder that the person at the assessment centre was one step away from the prison (Berdine & Meyer, 1987). Throughout the resident's stay, he was allowed visits and telephone calls, but he was not permitted to leave the grounds and no furloughs were granted under any circumstances (Berdine & Meyer, 1987).

Although early detection and intervention are essential for successful rehabilitation of disabled persons, they are not being covered by special education and other related services in most developing countries (Berdine & Meyer, 1987). Detection of disabilities is usually done in an uncoordinated manner. A parent who suspects that there is "something wrong" with his child may send him/her to a herbal centre, hospital, health centre or a special school. Assessment made at these centres may not be revealed to the parent and little advice given.

According to Berdine and Meyer (1987), the training of the child is therefore delayed until the child is of school age or older when a social worker, special education teacher or a concerned family friend may inform parents of an existing special school or rehabilitation centre. Parents may make use of the information by enrolling their child at the school or the vocational rehabilitation centre depending on their understanding of the value of their child's training and education, their emotional state and the moral support they receive (Berdine & Meyer, 1987).

Attempts have been made in several developing countries to formalise procedures for assessment, referral and early intervention. For instance in Africa, Zimbabwe has an assessment and support for parents and teachers (Berdine & Meyer, 1987). Besides its headquarters at the Ministry of Education and Culture, it operates from five centres spread throughout the country. This spread ensures that all schools are covered, a smooth referral system is established and a remedial education service developed (Berdine & Meyer, 1987).

Another example of assessment and support to parents and teachers is that of Kenya. In Kenya, there are now 17 Educational Assessment and Resource Centres established by the Ministry of Education, Science and Technology. More than 3,000 children have been identified since the centres became operational in September 1984. In addition to assessment, the centres also provide the much needed peripatetic services for schools which have integrated handicapped children (Christensen et.al, 1987).

The development of special education provision in Ghana followed the same pattern as in many other countries. The first special school was established by the Basel mission in 1945 at Akropong-Akwapim in the Eastern Region of Ghana for a few blind and crippled children (Ocloo, 1994). Later, this developed into the first school for the blind under the responsibility of the Basel mission (Ocloo, 1994). The second school for the blind was established in 1948, at Wa, the northern sector of Ghana. Three years after the establishment of the first school (Ocloo, 1994).

Until the Government of Ghana assumed responsibility for the education of the handicapped children in 1957, the two schools were the only schools providing such education (Ocloo, 1994). The first Act of parliament of Ghana which incorporated special education into the general education system was the Education Act, 1961 (Ocloo, 1994). According to Ocloo (1994), this coincided with the government's assumption of full responsibility for the training and rehabilitation of the disabled in Ghana. In this year, the first school for the deaf was established by an American Missionary who was himself deaf and mute (Ocloo, 1994).

One other significant event in the development of special education in Ghana is a survey conducted by the John Wilson, a blind Director of the Commonwealth Society for the Blind, at the invitation of the Ghana Government. The findings from the survey revealed that, the incidence of deafness among Ghanaian children was high and that there was the need for specialist teachers to teach the large number of deaf children. This then led to the Government

establishing the Deaf Education Specialist Training College at Mampong-Akwapim, 46 kilometres from Accra (Ocloo, 1994).

The Centre for Hearing and Speech Services (CHSS) is one of 15 dedicated centres for the assessment and management of hearing and ear problems in Ghana (Ocloo, 1994). The Centre (formally known as the Audiology clinic) was established in 1972 at Mampong-Akwapim in the Eastern Region of Ghana, to train and equip teachers who were pursuing diplomas in Special Education with skills to enable them access and manage children with hearing and speech problems (Ocloo, 1994).

In 1975, Ghana established the National Assessment and Resource Centre (NARC) for children with disabilities and special educational needs in Accra as a unit under Special Education Division of GES (Avoke, 2009). Primarily, the NARC is mandated to augment the efforts of the Ministry of Education by providing the special needs for the education of all Ghanaian children (Avoke, 2009). In addition, the function of the centre was to assess children who failed to cope with school work as well as younger children referred to the centre by hospitals and parents. Guidance and counselling was being offered to parents and classroom teachers to enable them understand the children and help them in the learning process (Avoke, 2009).

According to Avoke (2009), the following objectives were set for the centre;

1. To facilitate prompt identification and detection of early childhood disabilities and special educational needs.

2. To provide comprehensive and diagnostic assessment to all children suspected with disabilities and special educational needs.
3. Provision of opportunity for appropriate educational placement.
4. Make referrals for appropriate medical interventions
5. Create and promote the active participation of parents and guardians of children with disabilities and special educational needs.
6. Create and sustain public awareness on Early Childhood Disabilities and Special Educational Needs Issues and Services.

As the centre was located in Accra, the country's capital, it was unable to meet the needs of the whole country. The peripatetic service started in 1975 did not effectively liaise with the assessment and resource centres. In September 1992, the Audiology clinic was moved from Mampong-Akwapim to the University of Education at Winneba and, in 2003, the name was changed from Audiology clinic to Centre for Hearing and Speech Services (Avoke, 2009).

Currently, the Centre attends to about 35 clients (children and adults) every week (Avoke, 2009). The list below shows Assessment Centres in Ghana currently:

1. Hohoe Assessment Centre (Educational-Hearing)
2. Achimota Assessment Centre (Educational-Multipurpose)
3. 37 Military Hospital (ENT-Hearing)
4. Okomfo Anokye Hospital (ENT-Hearing)
5. Jamasi School for the Deaf (Educational-Hearing)
6. Korle-bu Eye Clinic (ENT-Visual)

7. Psychiatric Hospital (ENT-Neurological)
8. University of Education, Winneba Assessment Centre (Hearing and Speech) multipurpose
9. Hospital based sensory Assessment Unit in Regional and District, examples Cape Coast Hospital, Agogo Eye Hospital, Jirapa Hospital, Ho and Koforidua Hospitals
10. Sekondi Assessment Centres

Types of Special Educational Needs

Every child is an individual and children with Special Educational Needs are as different from each other as any other children, perhaps even more so. Even if a child has had a 'label' attached to his or her particular special need, this does not mean that his or her needs will be exactly the same as others with the same 'condition.'

According to Eamonn (2009), in all types of disability, the difficulties can range from mild to severe and many children will have problems in more than one area of learning. Eamonn further indicated that when a person is looking for information to help a particular child, that person should consider all the areas in which he or she might have difficulty. Eamonn (2009) classified special needs for children with Special Educational Needs into three major categories;

Learning Difficulties.

The most common special needs one is likely to find in the class are learning difficulties of various types. These may or may not be related to a

physical or medical condition. Learning difficulties can range from Mild, Moderate, Severe and Profound general learning difficulties.

Behaviour Difficulties.

The second category of special needs as revealed by Eamonn is the Behaviour Difficulties. Many pupils do not conform to what one would consider 'good' behaviour. Sometimes this is related to other problems in their lives which lead to them having a special educational need. The behaviour may be caused by a physical or medical problem or a learning difficulty.

Physical Difficulties.

The third form of special needs by Eamonn is Physical Difficulties. Increasing inclusion has meant the removal of barriers to access and this is encouraging more parents to have their children educated in mainstream schools alongside their peers. Increasing advances in technology is making this more and more successful.

However, Towles-Reeves, Kearns and Kleiner (2009) also classified learning difficulties into moderate, severe, profound and multiple or specific. In other words, learning difficulties are usually described as moderate, severe, profound and multiple or specific.

Moderate Learning Difficulties.

This includes children who have difficulties in all areas of learning. Their rate of progress is very slow. They attend mainstream schools unless they also have additional significant difficulties when they may be placed in a special school.

Severe Learning Difficulties.

This describes children who show a global delay in all areas of physical, intellectual and social development. Their rate of progress is less than half the rate of other children of the same age. These children will have a statement of special educational needs. They will attend mainstream schools whenever possible with support from a range of support services. If they have additional needs, they are more likely to be placed in a special school.

Profound and Multiple Learning Difficulties.

These difficulties describe pupils whose combination of physical, sensory and intellectual impairment is profound. They are usually identified soon after birth. They will have special provision from an early age and are most likely to attend a special school.

Specific Learning Difficulties.

Specific learning difficulties are an umbrella term which indicates that pupils display differences across their learning. Pupils with specific learning difficulties may have a particular difficulty in learning to read, write, spell or manipulate numbers so that their performance in these areas is below their performance in other areas. Pupils may also have problems with short term memory, with organisational skills and with co-ordination. Pupils with specific learning difficulties cover the whole ability range and the severity of their impairment varies widely.

Towles-Reeves, Kearns, Kleinert, and Kleinert (2009) elaborate the following as specific learning difficulties:

Hearing Impairment.

Most children with hearing difficulties go to their local mainstream school. The Educational Service for Hearing and Vision (ESHV) will give the school advice. Children with a significant hearing loss may have a statement of special educational needs. Those with the most severe hearing difficulties may be placed in a special resource for hearing impaired children.

Visual Impairment.

Most children who have difficulties with their eyesight will go to their local mainstream school. A teacher from the Educational Service for Hearing and Vision (ESHV) will be available to offer help and advice. Children who need to use Braille or need access to specialist teaching materials and equipment are also accommodated in mainstream schools.

Speech and Language Difficulties.

Most children with these difficulties will go to a mainstream school. The Speech and Language Therapy Service may arrange for the child to receive help at a local clinic. Some children with more severe needs may have a statement of special educational needs.

Physical Disability.

If a child has a physical disability, he or she may go to a local mainstream school. If their disability is greater, they may go to a school that has been specially adapted and resourced for their needs. Most children with severe physical difficulties will have a statement of special educational needs.

Autistic Spectrum Disorder.

Autism is a condition that affects the development of a child's social, communication and imagination skills. This is known as the triad of impairment. Autism can be found in people from those with average or high intelligence (when it is usually known as Asperger's Syndrome) to those with severe intellectual impairment. People can be severely affected in one or two of the triad of impairments, but not necessarily in all.

Autism.

Autism can also vary from relatively mild to severe in intensity. For these reasons, the phrase "Autistic Spectrum Disorder" is commonly used. Many children on the autistic spectrum stay in their local nursery or school. The most severely affected are likely to have a statement of special educational needs. If appropriate, they may be placed in a specialist autism resource, or special school.

Behaviour, Emotional and Social Difficulties (BESD).

Behaviour, emotional and social difficulties describes a wide range of difficulties including children who are very withdrawn, children who are hyperactive, children with mental health problems, children who are unable to control their temper and those who are aggressive or disruptive. Most children with BESD attend their local mainstream school. Those with the most extreme needs are likely to have a statement and for some, placement in a special school may be considered appropriate.

According to Kwaku (1998), although the following disabilities interfere with the learning process, they are not in and of themselves learning disabilities.

However, they are disabilities that frequently occur concomitantly with learning disabilities and they too require accommodations under the law.

Theories on Special Education Needs and Assessment Centres

The Theory of Multiple Intelligences (MI).

As did indicate from the literature, procedure involve in the assessment of children with special educational needs take into account intelligence performance and achievement tests. The Multiple Intelligence theory relates to this aspect of the assessment process. Howard Gardner's Theory of Multiple Intelligences (MI) has offered educators a comprehensive framework within which fundamentally different solutions can be implemented. The theory was proposed by Howard Gardner in 1983 to more accurately define the concept of intelligence and to address the question whether methods which claim to measure intelligence (or aspects thereof) are truly scientific.

According to Gardner (1999), intelligence is much more than IQ because a high IQ in the absence of productivity does not equate to intelligence. In his definition, "Intelligence is a bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture". Gardner's definition views it as many things. He endeavoured to define intelligence in a much broader way than psychometricians. To achieve this goal, Gardner (1999) established several criteria for defining intelligence. In identifying capabilities to be considered for one of the "multiple

intelligences" the construct under consideration had to meet several criteria rather than resting on the results of a narrow psychometric approach.

Howard Gardner viewed intelligence as “the capacity to solve problems or to fashion products that are valued in one or more cultural setting” (Gardner, 1999, p. 8). He reviewed the literature using eight criteria or 'signs' of an intelligence. Potential isolation by brain damage, the existence of idiots savants, prodigies and other exceptional individuals, an identifiable core operation or set of operations, a distinctive development history, along with a definable set of 'end-state' performances, an evolutionary history and evolutionary plausibility.

A tenet of MI theory is that people learn, represent, and utilize knowledge in many different ways. These differences challenge an educational system which assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning. According to Gardner, "the broad spectrum of students and perhaps the society as a whole would be better served if disciplines could be presented in a number of ways and learning could be accessed through a variety of means" (Gardner, 1999).

The theory validates educators' everyday experience: students think and learn in many different ways. It also provides educators with a conceptual framework for organizing and reflecting on curriculum assessment and pedagogical practices. In turn, this reflection has led many educators to develop new approaches that might better meet the needs of the range of learners in their classrooms.

Assessment Centres in Ghana and Their Mission Statement

Special education has been defined by many educationists but the central idea remains the same, simply because the definitions tend to describe the same programme which is used to educate a specific population of children. Kelly and Vergason (1985) define special education as a broad term conveying programmes and services for exceptional children who deviate so far physically, mentally or emotionally from the normal that they require learning experiences, teaching techniques or materials in order to mainstream in regular classroom and specialized classes and programmes when the problems are severe.

Special education takes a critical look at the child's learning needs; therefore the emphasis is placed on the uniqueness of the child. This is taken into consideration when planning a lesson and using instructional strategies. Special education has become an important part of education in all parts of the world because it is clear, after series of research, which quite a number of children are found to be incapable of learning without special education services.

Assessment is the hallmark of every effective school system. Without assessment procedures, the monitoring of schools' performance will be difficult and diagnosis and remediation of learning problems will be haphazard. McLoughlin and Lewis (1994) defined educational assessment of special student as a systematic process of gathering relevant information in order to make legal decisions. The role of the special educator is to concern herself with the educational problems of the child.

Educational assessment is multifaceted and as a result, it needs multi disciplinary approach. There is the need for inter-sectoral collaboration from selected professionals from the Ministries of Health, Education and Social Welfare. This becomes necessary when the child's problem necessitates medical attention sometimes during the processes of diagnosis and treatment.

The special educator concentrates on learning problems and their remediation while social workers defend the rights of the child sometimes using legal means. Children with disabilities must be helped towards normalization, and this could be done through effective programming. This must involve three sector ministries to be effective, and they are Ministry of Education: Provision of prosthetics, wheelchairs, callipers, drugs, hearing aids, physicians, clutches. Ministry of Social Welfare and Employment: Provision of auxiliary staff, pursuance of polices and legalization of basic rights and creation of employment. The Ministry of Health also provides: Opportunities, Community-Based Rehabilitation, Specialist support in skill training using job counsellors and occupational therapists.

Mission Statement.

The mission statement of the assessment centres is to enhance the educational opportunities of children with disabilities and special educational needs, through the provision of awareness for early identification and detection, for the promotion of appropriate medical interventions and educational and vocational placements.

Objectives of Assessment Centres.

The objectives of assessment centres include the following:

1. To facilitate prompt identification and detection of early childhood disabilities and special educational need.
2. To provide comprehensive and diagnostic assessment to all children suspected with childhood disabilities and special educational needs.
3. Provision of opportunities for appropriate educational placement.
4. Make referrals for appropriate medical interventions.
5. Create and promote the active participation of parents and guardians of children with special educational needs and disabilities.
6. Create and sustain public awareness on early childhood disabilities and special educational needs issues and services (Avoke, 2009).

Services Offered.

The following services are offered at the assessment centres.

1. Screening
2. Diagnostic Assessment
3. Educational placement
4. Referral for medical intervention
5. Remedial programmes for learning disabled
6. Speech training
7. Correction of refractive errors
8. Creation of public awareness/Education on disability issues

9. Follow-up activities in schools and homes
10. Prescription and provision of assistive devices
11. Guidance and Counselling
12. Teacher support (Avoke, 2009).

Functions of the Assessment Centres

Disabilities in children are a very critical thing. Some disabilities are very difficult to detect because they can either be permanent or temporary, progressive or retrogressive and hidden or manifested. For these reasons assessment centres should be designed to assist in detecting handicapping problems right at the onset. The centres, primarily, must determine the child's special educational needs by specifying non-educational provision needed if the child is to benefit from rehabilitation or any form of special education.

Avoke (1997) cited Keren and Charlton who maintained that in order to help children who manifest problems in an assessment process one should be able to identify and describe the child's success or otherwise in learning. The child's difficulties in specific learning experiences must be remediated.

According to UNESCO's (1986), guidelines on educational assessment of the handicapped, educational assessment centres must have units, which must follow an action plan. Some of these include:

1. Special Assessment and Hearing Department
2. Resource Education Department
3. Parents Education Department

4. Clinical Child Psychology Unit
5. Speech Assessment Unit.

Avoke, Hayford, Ienacho and Ocloo (1998) discussed that speech and hearing are key functions in normal development but problems in these areas are often difficult to detect. It is even more difficult to detect them in Ghana because of our socio-cultural explanations of disability in general and deafness in particular. For this reason, speech and hearing evaluations are often included in the diagnostic study of the special child.

According to Surran and Rizzo (1979), it is expedient to engage the services of the speech and languages pathologists to serve or man this unit. It is realistic to note that although speech and language pathologists determines the presence of hearing difficulties in a suspected child, hearing is best evaluated by an audiologist, a specialist in the assessment of hearing functions and hearing impairment. It is important to know that sometimes the Otologist or the ENT specialist may be invited or consulted when the child manifests medical problems.

Units under Assessment Centres

There are three main units under the assessment centres. These include the following:

Resource Education Unit.

According to Ocloo (1994), parents of children with all forms of disabilities require assistance in diverse forms to be able to cope with the impact of disabilities in their children. Parent's guidance at the centres is periodically

needed and offered. Some children with mild disabilities are already mainstreamed in the regular school. Ocloo (1994) intimated that peripatetic services or itinerant services are also offered from this unit to pupils in the integrated school system to foster the concepts of mainstreaming and inclusive education as much as possible. This means a specialist teacher can move out to schools with the disabled to teach or give the required support to the regular teachers in the ordinary school setting.

Clinical Counselling Unit.

The birth of a child with disability more often than not creates confusion, self-pity and ambivalence in families (Ocloo, 1994). There are also incessant self-accusation and apportioning of blame. This necessitates the role of counsellors and psychologists to give guidance and counselling to parents who have obvious emotional problems as a result of their children's disabilities. The parents are counselled on how to accept and deal with their feelings of embarrassment, frustration, resentment, anxiety and guilt in order to develop healthy relations with their handicapped children. The psychologists also help to determine the intelligence quotient (IQ) of the children and report on the social and communicative skills of the individual child so that programme for remediation could be developed for the affected child.

Parent Education Unit.

According to Ocloo (1994), the family is the basic social institution in which children develop personalities. The family also serves as the transmitting system of culture to the child. The family involving parents are therefore,

indispensable when planning special education programme. Social workers and special educators need to be in close link with parents in order to give them guidelines on appropriate child-upbringing procedures involving children with disabilities (Ocloo, 1994). The personnel of this unit also need to link parents up with other specialist attention not provided at the assessment centres.

According to Ocloo (1994), parents are also educated at the assessment centres during periodic workshops organized for them. They are also supposed to be carried through practical activities on how to perform specialized skills with their children with disabilities. The role of each person at the centre is very important because it is only through a multi-purpose approach that the children can be given better education and placement (Ocloo, 1994). Generally, therefore, the function of the assessment and resource centres include identification of various types of disabilities and advise on placement, monitoring and evaluation of educational programmes involving children with disabilities (Ocloo, 1994).

Forms of Assessment

According to Berdine and Meyer (1987), there are formal and informal assessments. Formal assessment uses standardized paper and pencil tests, and scores are interpreted on the basis of a normative group. Informal assessment uses such techniques as observation, interview, work sample analysis and behaviour rating scales. Tests are usually teacher made, subjective and not standardized and scores are interpreted in terms of the skills a child has mastered.

If assessment is to be useful in meeting the needs of a child, it should be ecosystemic (Berdine & Meyer, 1987). Ecosystemic means that assessment should take into consideration all the factors in the child's surrounding, home and school, as well as the mass media that influence him or her (Berdine & Meyer, 1987). There is a symbiotic relationship since they exert influence on the children. For example, in the assessment, information should be sought on the type of relationship that exists between the parents and child, siblings, and child and home facilities which the child can access to learn.

Additionally, the type of television programmes watched, and the books read and radio programme the child listens to should be investigated. According to Berdine and Meyer (1987), teachers need to know that in collecting information, both within the child and external factors should be assessed for a fuller picture of the child's needs. Some of these may be intrusive since they may be regarded as invasion of privacy. Yet, if the fact is appreciated that it is for the child's good, much can be achieved. Assessment is ecosystemic if this approach is adopted (Berdine & Meyer, 1987).

There are various steps in the assessment process. However it is generally agreed that assessment starts with screening, and that screening results are not meant for decisions related to instructional planning and implementation. Berdine and Meyer (1987) defined screening as the process of "assessing a large number of children for the purpose of identifying those who need more thorough evaluation to determine whether or not they actually have problems" (p. 113).

The Okomfo Anokye Hospital in Kumasi and the Audiology Clinic in the University of Education, Winneba, routinely screened the school population for information on hearing and visual problems (Avoke, 1997). It is not only those in health and medical profession who screen; parents and teachers can also screen (Avoke, 1997). However, in Ghana, apart from observation and perhaps interview, there are no screening tests for teachers and parents to use for early identification of disabilities. Most mild to moderate disabilities are therefore not noticed until school age. It may therefore be necessary for educational institutions such as the Universities to develop appropriate instruments for parents and teachers to use (Avoke, 1997).

When screening is done and there is suspicion of the existence of a disability, the next stages are pre-referral and referral stages. At the pre-referral stage, teachers are required to make some adaptations in the physical environments as well as instructional methods with an aim of overcoming the difficulty and helping the child to improve. If adaptation fails, then the child has to be formally referred for evaluation. Referral is the process of soliciting assistance for evaluation from others (Shea & Bauer, 1999).

Experts are thus consulted for a more thorough evaluation, but this is done only when parents have been consulted and their consent for the evaluation obtained. Lewis and Doorlag (1995) suggest that the reason for the referral must be explained to the parents. As key stakeholders, their consent is necessary for they can give vital pre-natal information (e.g. maternal psychological state and

diseases during pregnancy), pre-natal (e.g. delayed labour and oxygen deprivations) and post-natal (e.g. accidents) to the assessors to ease their task.

In the evaluation stage, several professional services including educational, health and social services, determine the special needs of the child. The law permits no single educator to conduct evaluation alone (Department of Health, 1991; Gearheart & Weishahn, 1988). Citing communication disorders, Lewis and Doorlag (1995) report that when hearing loss is suspected to be contributing to speech or language performance, the school nurse is consulted. But in a minor speech disorder, the speech pathologist takes primary responsibility for assessment. Lewis and Doorlag (1995) further intimate that if a more serious difficulty is suspected, several specialists have to participate in gathering assessment information. Assessment will therefore be comprehensive and multidisciplinary.

Access to Education of Children with Special Educational Needs (SEN)

Access to basic education lies at the heart of development (Heward, 1996). Lack of educational access, and securely acquired knowledge and skill, are both a part of the definition of poverty, and a means for its diminution (Heward, 1996). According to Heward (1996), sustained access to meaningful learning that has value is critical to long term improvements in productivity, the reduction of inter-generational cycles of poverty, demographic transition, preventive health care, the empowerment of women, and reductions in inequality (Akyeampong, Browder, Karvonen, & Wakeman, 2007).

Watson, Kiekhefer and Olshansky (2006) opined that in order that handicapped children and youth may be placed in appropriate institutions, policy requires that they are assessed and evaluated for the purpose of identifying their needs, strengths and weaknesses. Assessing students with learning disabilities can be a challenge (Watson, Kiekhefer, & Olshansky, 2006). However, we must remember that assessing is providing the child with an opportunity to demonstrate knowledge, skill and understanding (Watson, Kiekhefer, & Olshansky, 2006).

Moreover, an assessment centre is expected to carry out a standardized evaluation of behaviour based on multiple inputs. Multiple trained observers and techniques are used. Judgments about behaviours are made, in major part, from specifically developed assessment simulations. These judgments are pooled in a meeting among the assessors or by a statistical integration process (Guidelines and Ethical Considerations for Assessment Centre Operations, 1989; Teacher Training Agency, 1999).

Assessment centres can also be viewed as ‘a method for assessing aptitude and performance; applied to a group of participants by trained assessors using various aptitude diagnostic processes in order to obtain information about applicants' abilities or development potential. Christensen, Gerber and Everhart (1987) defined assessment centres as a facility set up at an existing special school unit for the handicapped, in an ordinary school, health centre, or hospital to which parents can bring children with disabilities. The centre may be staffed with teachers, nurses, physiotherapists, occupational therapists, social workers and psychologists.

The functions of an Educational Assessment and Resource Centre include; assessment, parent guidance and counselling, in-service training, production of materials and providing support services to other schools.

In other words, an educational assessment centre should assess

1. All children between 0-6 years, so that their identification can be achieved as easily as possible,
2. All handicapped children shortly before they reach school age, so that the right school can be chosen,
3. Children of school age, so that teachers can plan their education in the most effective way possible, and
4. Children in ordinary schools for the identification of those with learning difficulties.

Statutory Assessment.

Most children's need can be met by the extra help available through School Action or School Action Plus. However a small number of children may need a lot of extra help that only a statutory assessment will identify. A statutory assessment is a detailed assessment of a child's special educational needs. The aim of the assessment is to find out what special educational needs a child has and what special help he or she will need to meet those needs.

A statement of special educational needs is a legal document that might follow a statutory assessment. It describes a child's difficulties and the special help that is needed to meet those difficulties. It will also specify the type and name of school that can provide for those needs. It may be possible for the school

to meet the child's special needs by providing extra support. This could be, for example, by providing different learning materials or special equipment, using different teaching approaches, providing advice for teachers or specialist teaching for the child. If the child needs more support than the school can normally provide, more investigation may be needed to decide whether he needs additional or different help. This may mean that a formal assessment of the child's needs be carried out.

Thus, a statement of special educational needs (SEN) sets out the child's needs and the help they should have. It is reviewed annually to ensure that any extra support given continues to meet the child's needs (Kenworthy & Whittaker, 2000). This review requires a meeting to be held involving the school, parents and any relevant professionals. The review considers whether the child's needs are still being met, whether any amendments are needed to the statement or whether the statement is no longer required.

According to Kenworthy and Whittaker (2000), a statement of SEN is set out in six parts:

1. part one gives general information about the child and a list of the advice the authority received as part of the assessment
2. part two gives the description of the child's needs following the assessment
3. part three describes all the special help to be given for the child's needs
4. part four gives the type and name of the school the child should go to and how any arrangements will be made out of school hours or off school premises
5. part five describes any non-educational needs the child has

6. part six describes how the child will get help to meet any non-educational needs.

The SEN Assessment and Review Team manages, monitors and reviews the arrangements for the statutory assessment, reassessment, placement and annual review of pupils/students with special educational needs. The Special Educational Needs Assessment Team (SENAT) is responsible for administering statutory assessments and the production of statements of special educational needs.

The selection for Special Education Provision depends on the age of the child and the type of handicap. For children in special schools, assessment is based on multi-disciplinary approaches which include medical, psychological, educational and social evaluation by specialists in the various disciplines. Assessment is carried out in the various schools for handicapped children in the assessment centres. There is therefore a close connection between the school and assessment centre in the process of assessment.

According to the Head of the National Assessment Centre, Achimota, Accra, schools refer more complicated cases to the centres and depending on the cases, the appropriate interventions are taken. Normally, assessment begins with medical diagnosis and evaluation to ascertain the nature and extent of the disability. The child is then referred to each of the specialists mentioned earlier. Assessment takes into consideration all aspects of the child's personality and life and usually takes the form of case study, observation and intelligence performance and achievement tests.

In Ghana, there is a national committee on assessment for special education. This committee is charged with the responsibility for reviewing and advising on assessment procedures and also on the use of test batteries. The main objective of the assessment procedure is to ascertain the educational potential of the handicapped children, taking all aspects of the personality of these children into account. The end product of the whole process is the proper placement of these children in schools, and preparation of the individualized curricula. For these purposes, assessment is made a continuous process with periodical evaluation and re-evaluation (LaRue, 1989).

Identification and Assessment of Children with Special Educational Needs

Children's early years are an important period for their development. If they have special educational needs (SEN) it is important they are identified as early as possible. The decision whether to make a formal assessment of a child's needs is made by the local education authority.

According to Kirk, Gallagher and Anastasiow (1993), in order to qualify for special education, a child must have one of the following disabilities negatively impacting on his or her education:

1. Hearing, speech or visual impairment
2. Brain injury or mental impairment
3. Serious emotional issues
4. Autism
5. Serious health issues

6. An identifiable learning disability

According to Kirk, Gallagher and Anastasiow (1993), if a parent requests for special education evaluation for his child, the assessment centre must provide testing and meet with the parent for a formal evaluation. If the parent, however, does not agree with the evaluation, he/she has the right to an Independent Educational Evaluation ("IEE") done by someone who does not work for the centre. The evaluation, according to Kirk et al. (1993), must include;

1. A description of the child's current functioning level, based on testing, grades, reports or teacher's observations.
2. Information on how the child's disability affects his or her academic progress.

The assessment must be carried out according to set procedures laid down by law. It is against the law for the assessment to discriminate against any child because of race, sex, religion or disability. If a parent wants to ask for an assessment, he or she should provide the local education authority with as much information as he can about why he thinks it is necessary (Guidelines and Ethical Considerations for Assessment Centre Operations, 1989).

Performing Assessment for Children with SEN

All children and young people are different and have different needs (Bamburg, 1994). Similarly, a family's ability to respond to and meet all their needs may also differ. Bamburg (1994) intimated that in some circumstances,

professional assessment may be required to identify strengths and needs, to ensure that all children, young people and their families receive appropriate support.

According to Barnados (2006), assessment must be part of a cycle. The assessment must inform planning, the plan must then be implemented, the implementation must then be reviewed, which may lead to further assessment. Assessment on its own for its own sake will not achieve effective change and support for children, young people and their families.

Barnados illustration of the assessment cycle is shown in Figure 1.

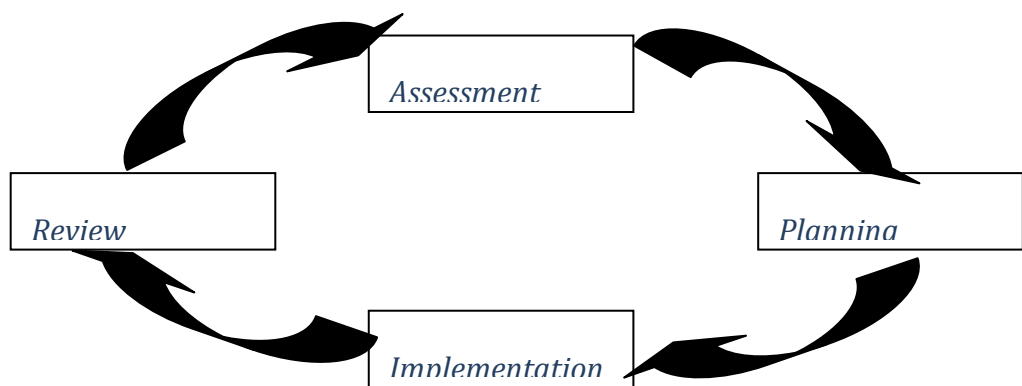


Figure 1: Assessment Cycle

Source: Barnados (2006)

Today assessment practices are more ecologically-based than they were in the past. Settings where children are assessed tend to be more naturalistic and representative of the types of places children spend their time. Assessments often occur in settings that are comfortable and familiar to the child, instead of a clinic or unfamiliar environment (Common Assessment Framework for Children and

Young People, 2005). Family members are included in the authentic assessment process.

Bailey, Deskow, Davis and Skinner (2006) recommend families understand their child's strengths, abilities, and special needs. Families call for emotional, material, and informational support (McWilliam, 2005). Rapport and a trusting relationship should be fostered with the child's family. In assessment, there is the need to provide information to the family about a particular assessment tool(s) that will be used. Questions to validate the assessment process are also asked where difficult issues are addressed to encourage continued parental involvement (Dunst, Hamby, Trivette, Raab & Bruder, 2000).

Assessment should follow the 'non-deficit' model or strengths or needs model, where focus is placed on a child or young person's strengths and needs, rather than their weaknesses, as this has been shown to lead to more positive outcomes (Overton, 2000 & Barnados, 2006). However, issues and problems also need to be considered. The assessment process should be a positive experience and the practitioners should work with a child or young person, their parents or carers and other agencies, to gather information to establish the issues that need to be addressed and assess the most suitable response (Overton, 2000; Barnados, 2006). Assessments should be grounded in knowledge, i.e. theory, research findings and practice experience in which confidence can be placed to assist in the gathering of information, its analysis and the choice of intervention in formulating a plan (Barnados, 2006 & Boom, 2008).

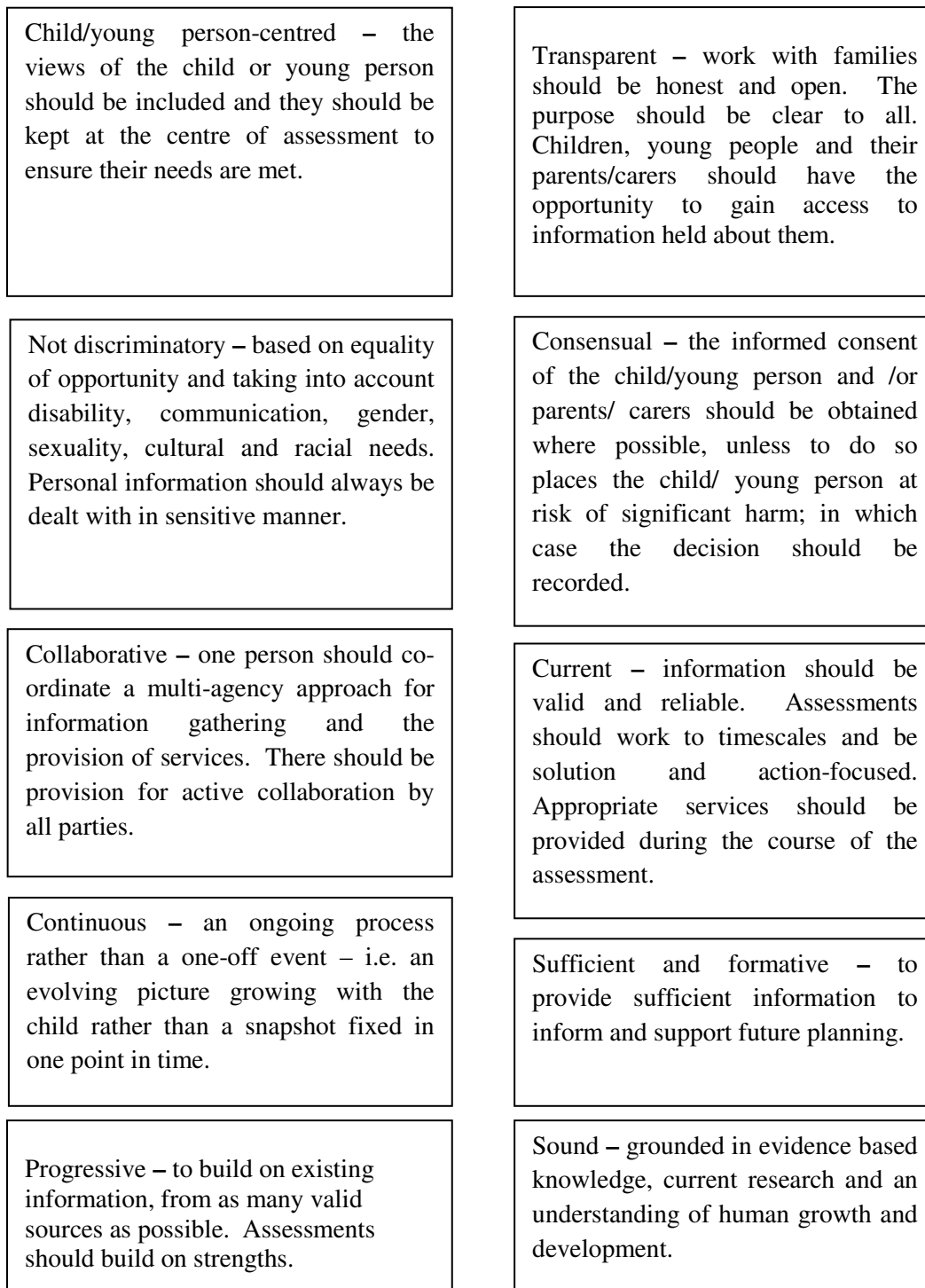


Figure 2: Assessment Procedure

Source: Barnados (2006)

Where an education authority intends to begin to assess a child, it must serve on the parents a formal notice to submit their child for assessment (Barnados, 2006; Booth & Ainscow, 2002). This notice must state the purpose of the assessment; specify the times and places at which it is proposed to carry out any examination(s) of the child; tell the- parents of their right to be present at any medical examination; state the name of the education authority officer from whom advice and further information is available; and invite the parent to submit written views, within 21 days of the date of the notice or such longer period as may be specified, on the special educational needs of the child and measures required to meet them. This notice is, in effect, the formal point at which the process commences, but other assessments will have occurred at various stages before this and parents will have been made aware that their child possibly has learning difficulties (Armstrong, 1994).

The Framework for the Assessment of Children in Need and their Families (DoH) covers the areas shown in Figure 3 according to the British Agencies for Adoption and Fostering (1999), and is the model some other assessment tools follow or build on. As shown in Figure 3, the framework is based on three domains:-

1. Child's developmental needs,
2. Parenting capacity,
3. Family and environmental factors.

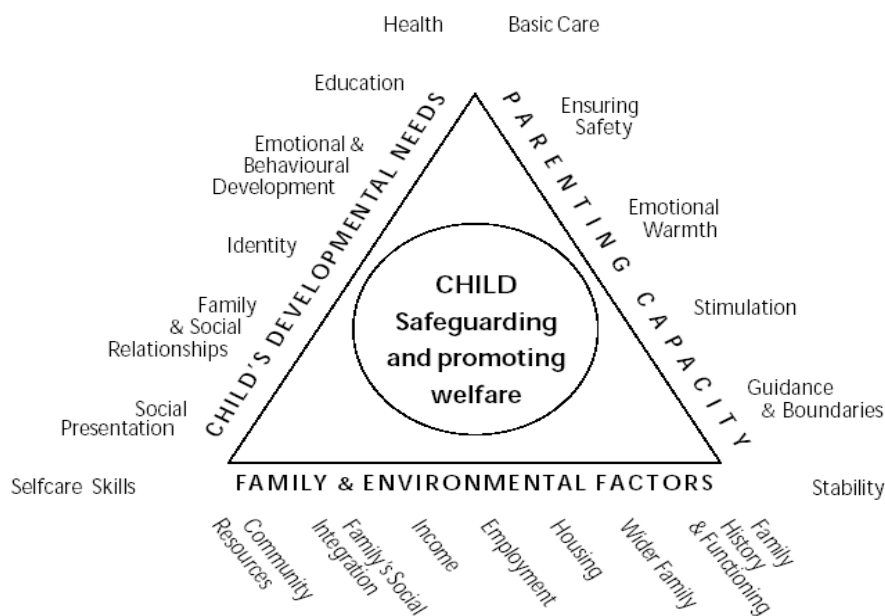


Figure 3. Framework for the Assessment of Children in need and their Families.

Source: Barnados (2006)

Related Studies on Assessment Centres for Children with Special Educational Needs (SEN)

According to Anon (2004), the last fifty years have seen significant changes in the education of students with special learning needs. An estimated 1.7 million pupils in the UK have special educational needs (SEN), with over 250,000 having statements of SEN. The Warnock Report, *The Education of Handicapped Children and Young People*, was published in 1978. The document “provided the foundation for revolutionary change in thinking about the educational needs of children with special needs” (Anon, 2004, p.2).

The report sought to cover any student learning needs that could not be met by teachers in a typical mainstream classroom, and advocated inclusion rather than special schools (Anon, 2004). Warnock (1978) contended in her report that we should consider the ideal of including all children in the common educational enterprise of learning, wherever they can best learn.

In a study, conducted by the Department for Children, Schools and Families (DCSF), 223,600 (or 2.8 per cent) of pupils across all schools in England had statements of SEN (Kleinert & Kleinert, 2009). According to Kleinert & Kleinert (2009), in 2008 there were some 1,390,700 pupils with SEN without statements representing 17.2 per cent of pupils across all schools. This is an increase from 16.4 per cent from a year earlier. Contrary to the pattern for pupils with statements of SEN, the incidence of pupils with SEN without statements is greater in primary schools (18.1 per cent) than in secondary schools (17.8 per cent) (Kleinert & Kleinert, 2009).

In 2003, the member countries of the European Agency for Development in Special Needs Education identified assessment in special needs education (SEN) settings as being an issue of major concern and interest for them. As a result, in 2004, the Agency began an investigation into assessment in mainstream primary settings that supports inclusion (Kleinert & Kleinert, 2009; Kleinert, Browder & Towles-Reeves, 2009).

Empirical evidence on assessment centres for children with special educational needs is seen from a related study conducted by Llewellyn and Hogan (2000) identified approaches to providing for children with special educational

needs in Japan. This survey, also, identified a number of factors affecting the children served in special schools and classes. These include costs of academic and non-academic instruction, students employed after schooling, education cost per student, enrolment by school level and by sex.

There are also indications that access to education for many with disabilities in Ghana which is a crucial role, thus identification and assessment of children with special educational needs is an urban phenomenon although this could also be a result of under-reporting in rural areas. For example, a study in Accra and some rural areas in Eastern region revealed that majority of students with disabilities had not had their disabilities detected or identified by professionals (Obeng, 2007).

Critiques of Howard Gardner's Theory of Multiple Intelligence (MI)

There are various criticisms of, and problems around, Howard Gardner's conceptualization of multiple intelligences. Indeed, Gardner himself has listed some of the main issues and his responses (Gardner, 1993). Armstrong (1994) has argued that there are significant issues around the criteria that Howard Gardner employs. There are questions around the individual criteria. For example, do all intelligences involve symbol systems? How are the criteria to be applied? Why are these particular criteria relevant? In respect of the last and fundamental question, White states that he has not been able to find any answer in Gardner's writings. Indeed, Howard Gardner himself has admitted that there is an element of subjective judgment involved in his theory.

More recent developments in thinking around intelligence such as Sternberg's (1996) advancement of a 'triarchic model' have shared Gardner's dislike of such standard intelligence theory. However, in contrast to Howard Gardner, Sternberg (1996) does not look strongly at the particular material that the person is processing. Instead he looks to what he calls the componential, experiential and contextual facets of intelligence. A further set of criticisms centre on the specific intelligences that Howard Gardner identified. For example, it can be argued that musical intelligence and bodily-kinaesthetic intelligence are better approached as talents (they do not normally need to adapt to life demands).

A common criticism made of Howard Gardner's work is that his theories derive rather more strongly from his own intuitions and reasoning than from a comprehensive and full grounding in empirical research. For the moment, there is not a properly worked-through set of tests to identify and measure the different intelligences. In other words, the fundamental criticism of MI theory is the belief by scholars that each of the seven multiple intelligences are in fact a cognitive style rather than a stand-alone constructs (Morgan, 1996). Morgan (1996) refers to Gardner's approach of describing the nature of intelligence with terms such as abilities, sensitivities, skills and abilities as evidence of the fact that the "theory" is really a matter of semantics rather than new thinking on multiple constructs of intelligence and resembles earlier work by factor theorists of intelligence.

Furthermore, as one would expect from a theory that redefines intelligence, one of the major criticisms of the theory is that it is ad hoc. The criticism is that Gardner is not expanding the definition of the word

"intelligence"; rather, he denies the existence of intelligence, as is traditionally understood, and instead uses the word "intelligence" whenever other people have traditionally used words like "ability". This practice has been criticised by Eysenck & Keane (2005).

Defenders of MI theory argue that the traditional definition of intelligence is too narrow, and thus broader definition more accurately reflects the differing ways in which humans think and learn. They would state that the traditional interpretation of intelligence collapses under the weight of its own logic and definition, noting that intelligence is usually defined as the cognitive or mental capacity of an individual, which by logical necessity would include all forms of mental qualities, not simply the ones most transparent to standardized I.Q. tests.

Some of these criticisms arise from the fact that Gardner has not settled on a single definition of intelligence. He originally defined it as the ability to solve problems that have value in at least one culture, or as something that a student is interested in. However, he added a disclaimer that he has no fixed definition, and his classification is more of an artistic judgment than fact.

Another critic of MI is seen from Carroll (1993) in a survey of factor-analytic studies. Here, Carroll finds it interesting "that the kinds of 'intelligences' described by Gardner show a fairly close correspondence with the broad domains of ability" as suggested by Raymond, Cattell and John Horn. For example, Carroll believes that Gardner's linguistic intelligence corresponds closely to the concepts of Cattell and Horn's crystallized intelligence. Carroll also views

Gardner's logical-mathematical and visual-spatial intelligence suspiciously similar to the concept of fluid intelligence and visual perception, respectively.

In Morgan (1996) a study of an analysis of Gardner's theory of multiple intelligence, Morgan contended that Gardner's index of intelligences bore striking resemblance to cognitive style constructs and intelligence quotient factors identified by others in unified theories of intelligence. Morgan stated that MI theory merely adapted factors identified as primary abilities in factor analyses of data derived from intelligence tests and re-labelled them as intelligences.

Morgan reviewed the literature on cognitive styles. His findings suggested numerous similarities between MI framework and styles of cognition. For example, Morgan interpreted Gardner's logical-mathematical intelligence as being applied to those who are simply sensitive to logical or numerical patterns and thus have the ability to handle long chains of reasoning and whose ideal careers are scientists or mathematicians.

Implications of MI Theory for Assessment of children with Special Educational Needs

The implication of MI theory for special education goes far beyond the development of new remedial strategies and interventions. According to Armstrong (1994), if MI theory is implemented on a large scale in the assessment of children with special educational needs, it is likely to have some of the following effects:

(i) Increased self-esteem - with more emphasis placed on the strengths and abilities of children with disabilities, students' self-esteem are likely to rise, thus helping to promote success among a broader community of learners.

(ii) A greater emphasis on identifying strengths - qualitative and authentic measures are likely to have a larger role in special education and may perhaps begin to supplant standardized diagnostic measures as a means of developing appropriate educational programmes.

(iii) Fewer referrals to special education - when the regular curriculum includes the full spectrum of intelligences, referrals to special education classes will decline. According to Armstrong, Armstrong and Barton (2000), most teachers now focus on the linguistic and mathematical intelligence, neglecting the needs of students who learn best through musical, spatial, bodily-kinaesthetic, interpersonal or intrapersonal intelligences. Once regular classrooms themselves become more sensitive to the needs of different kinds of learners through MI learning programmes, the need for special placement, especially for learning disabilities or behaviour problems, will diminish (Armstrong, Armstrong & Barton, 2000).

Gardner (1993) argues for making assessment a natural part of the learning environment. Assessment is then built into the learning situation much like the constant assessment of skills that occurs in apprenticeship or the self-assessment that occurs in experts who have internalized a standard of performance based on the earlier guidance of teachers. The ecological validity of assessment is also an issue according to Gardner (1993). Predictive validity of

traditional intelligence tests may be psychometrically sound, but its usefulness beyond predicting school performance is questionable. Therefore, prediction could be improved if assessments more closely approximated real working conditions. Instruments for measuring intelligence should also be "intelligence-fair" (Gardner, 1993).

Consequently, we need to reduce the bias toward measuring intelligence through logical or mathematical and linguistic abilities and move toward looking more directly at a specific intelligence in operation (e.g., assessing for spatial intelligence by having an individual navigate his or her way around unfamiliar territory). Gardner acknowledges that this approach to assessment may be difficult to implement.

Gardner (1993) emphasizes two additional points about assessment that are critical. The first is that the assessment of intelligence should encompass multiple measures. Relying on a single IQ score from a WISC-III (Wechsler Intelligence Scale for Children) without substantiating the findings through other data sources does the individual examinee a disservice and produces insufficient information for those who provide interventions. Secondly, all assessments and resulting interventions must be sensitive to individual differences and developmental levels. Finally, Gardner is in favour of assessment for the primary purpose of helping students rather than classifying or ranking them.

While these views about assessment are intuitively sensible, Sternberg (1996) argues that the naturalistic approach is a "psychometric nightmare" Quantifying performance on these sorts of assessments is difficult, objectivity is

questionable, and cultural bias is still a problem. Hard data is the scientific "gold standard" and psychometric soundness is a prerequisite. Therefore, Sternberg (1996) hesitates endorsing this approach to assessment on the basis that we would simply be replacing one flawed system of measurement with an approach that is equally problematic. Recent research on MI Theory-based assessments provides evidence in support of Sternberg's concern about psychometric quality.

Vygotskian Social Development Theory (Harry Daniels)

Vygotsky's Social Development Theory is the work of Russian psychologist Lev Vygotsky (1896-1934), who lived during Russian Revolution. Vygotsky's work was largely unknown to the West until it was published in 1962 (Vygotsky, 1978). Vygotsky focused on the connections between people and the socio-cultural environment. According to Vygotsky (1978), humans use tools that develop from a culture, such as speech and writing, to mediate their social environments. Vygotsky's theory is one of the foundations of constructivism. It asserts three major themes. The theory covers on themes, in other words, according to Vygotsky, learning occurred in this zone.

1. Social interaction plays a fundamental role in the process of cognitive development. In contrast to Jean Piaget's understanding of child development in which development necessarily precedes learning, Vygotsky felt social learning precedes development. He states: "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual

level; first, between people (interpsychological) and then inside the child (intrapsychological).” (Vygotsky, 1978, p. 79).

2. The More Knowledgeable Other (MKO). The MKO refers to anyone who has a better understanding or a higher ability level than the learner, with respect to a particular task, process, or concept. The MKO is normally thought of as being a teacher, coach, or older adult, but the MKO could also be peers, a younger person, or even computers.
3. The Zone of Proximal Development (ZPD). The ZPD is the distance between a student’s ability to perform a task under adult guidance and/or with peer collaboration and the student’s ability solving the problem independently (Vygotsky, 1978).

The timeliness of Vygotsky's works is borne out by the fact that he discovered the connecting links between socio-cultural processes taking place in society, and mental processes taking place in the individual. In the Vygotskian framework, children are capable of far more competent performance when they have proper assistance "scaffold learning" from adults. The optimism of Vygotsky's general message, substantiated by a number of concrete methodologies such as "dynamic assessment", "mediated learning", "cognitive education" developed within Vygotsky's theory, found an enthusiastic audience in American education of the 90s.

Unfortunately, the powerful influence of Vygotsky’s ideas has not been as obvious and fruitful in the domain of special education in the United States. There is a sad irony in this fact because special education not only played a distinct role

in Vygotsky's professional activity and personal life (Vygodskaya & Lifanova, 1999), but it also constitutes an important part of his scientific heritage.

Special education was the main empirical domain from which Vygotsky obtained data to support his general theoretical conceptions (Vygodskaya & Lifanova, 1999). Being conscious of the "artificiality" of the data brought about in psychological experiments, Vygotsky considered special education as a huge natural laboratory where general psychological laws were discovered on the basis of various anomalies (Vygodskaya & Lifanova, 1999). Indeed, many of the major concepts of his cultural or historical theory were conceived, formulated and elaborated upon within the special education theoretical framework and terminology.

According to Vygodskaya and Lifanova (1999), thousands of teachers and parents, well before Vygotsky, observed that with the proper assistance from an adult or a more advanced peer, a child is capable of much more learning than doing it on his or her own. Vygotsky elevated this simple observation to a theoretical generalization known as the "Zone of Proximal Development" (ZPD) (Vygodskaya & Lifanova, 1999). He stated that the process of scaffolding brings about abilities that have been in the process of emerging, developing, (that is, have not yet matured) and thus reveals the hidden potential of a child which is crucial for both diagnosis and prognosis. The ZPD is one of Vygotsky's ideas that has a direct bearing on practice, both in psychological testing and in school instruction, and is, perhaps, the best known and most experimentally scrutinized concept in Vygotsky's entire legacy (Vygodskaya & Lifanova, 1999).

The ZPD in its application to special education, however, still remains pretty much "terra incognita". It is known that in terms of individual differences, the depth of the ZPD varies, reflecting a child's cognitive and meta-cognitive learning potential (Vygotskaya & Lifanova, 1999). From this perspective, it offers a qualitative distinction between children with mental retardation and educationally neglected, temporally-delayed, or bilingual students from impoverished families.

Those children might appear similarly backward in their functioning according to the results of standardized psychological testing because those tests report the current samples of behaviour (Sattler, 1992), but they do indeed differ dramatically in their ability to benefit from an adult's help, as Vygotsky and his followers in Russia showed (Lebedinsky, 1985). On the other hand, questions do arise about the validity and effectiveness of this notion applied to children with disabilities, whose unaided performance could be extremely limited.

The real advantages of this concept and its practical application within the American system of special education still remain to be seen based on further verification of its merits and limitations (Lebedinsky, 1985). Vygotsky is rightfully considered to be the "founding father" of what is now known as "dynamic assessment". In the early 1930s, at the height of the enthusiasm for IQ testing, Vygotsky was one of the first (if not the only one in his time) who defined IQ tests' limitations based on his understanding of disability as a process, not a static condition, and on his understanding of development as a dialectical process of mastering cultural means (Lebedinsky, 1985). He noted that standardized IQ

tests inappropriately equalize the natural and cultural processes and, therefore are unable to make the differentiation of impaired functioning that can be due to cultural deprivation or can be the result of organic damage.

Vygotsky's Criticism of the Psychometric Approach

Vygotsky's defined the limitation of IQ test based on the idea of disability as a process, not as a static condition (Gindis, 1999). He recommended a development assessment, which should concentrate on mental process and certain qualitative methods of cognition indicators (such as cognitive strategies used by the child, the type and character of the mistake, the child's ability to benefit from help and the child's emotional reactions to success and failure.

According to Gindis (1999), Vygotsky's believed that Psycho-educational assessment which is the central idea of the concept of MI should concentrate on mental processing (the actual cognitive strategies used by the child and not the products such as IQ. Gindis pointed out that the traditional standardized assessment trails the child's cognitive development to the point of failure in her individualised independent functioning, whereas assessment in the Vygotsky's tradition leads the child to the point of her achievement of success in collaborative activity.

Gestalt Psychology Theory

According to the Gestalt Psychology Theory, the assessment of children with special education needs takes into consideration all aspects of the child's

personality and life and which usually takes the form of case study and observation (Bruce, Green & Georgeson, 2003). Gestalt theory of psychology is related to this aspect of the assessment process (Bruce et al., 2003). Gestalt theory is from the psychological perspective. As Bruce et al. (2003) intimated the holds that to understand and/or adjust a person to normal standards, all aspects of his personality must be considered.

Gestalt psychology is a school of thought that looks at the human mind and behaviour as a whole. Originating in the work of Max Wertheimer, Gestalt psychology formed partially as a response to the structuralism of Wilhelm Wundt. The development of this area of psychology was influenced by a number of thinkers, including Immanuel Kant, Ernst Mach and Johann Wolfgang von Goethe. “The fundamental "formula" of Gestalt theory might be expressed in this way,” Max Wertheimer (1924) wrote. He added that “there are wholes, the behaviour of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole” (p. 46).

It is the hope of Gestalt theory to determine the nature of such “wholes” (Max Wertheimer, 1924). In Ghana, for example, identification and assessment of children with special educational needs is therefore based on this theory which has at the same time dictated the type of special educational provisions as well as policies formulated.

Criticism

In some scholarly communities, such as cognitive psychology and computational neuroscience, Gestalt theories of perception are criticized for being *descriptive* rather than *explanatory* in nature. For this reason, they are viewed by some as redundant or uninformative. For example, Bruce, Green and Georgeson (2003) conclude the following regarding Gestalt theory's influence on the study of visual perception:

The physiological theory of the Gestaltists has fallen by the wayside, leaving us with a set of descriptive principles, but without a model of perceptual processing. Indeed, some of their "laws" of perceptual organization today sound vague and inadequate. What is meant by a "good" or "simple" shape, for example (p. 12).

Different Types of Educational Assessment Tests

According to Bonnell (2007), educational assessment is classified as follows; Tests for Formal Assessments, Criterion Referenced Tests, Curriculum Based Measurements, and Teacher Assessment. According to Bonnell, Criterion Referenced Tests measure knowledge against certain criteria such as knowledge of one area of language. These tests usually have more than one version and the tester will change the versions around with student groups, so they will not memorize the questions or tasks (Bonnell, 2007). These tests are good for planning instructional strategies and measuring progress.

Curriculum Testing.

Bonnell (2007) described *curriculum testing* as an assessment without the use of formalised tests. The student is measured against the general curriculum to see if the deviation is enough to qualify for special education. If this testing method is used exclusively, there is lots of missing information. There are no clues as to why the student is not keeping up, as you would get from WISC-III or other testing data (Bonnell, (2007). That is why this method should NOT be used as the only qualification method for learning disabilities. Understanding WHY a student is not keeping up is very important, and this type of assessment does not give that information.

Teacher Assessment.

All ways of assessing are important in their own way, even teacher observations. However, too much "teacher observation" assessment leaves nothing to show, or prove, achievement of the goals and objectives (Boom, 2008). Teacher assessment can be subjective and should be only one part of any assessment. According to Bonnell (2007), parents are advised not let progress towards the short term goals on the Individual Education Plan (IEP) be measured by "teacher observation" only. While it is an important component, it should not be the sole means of testing. Objective, measurable testing should always be included and is required by law (Bonnell, 2007& Boom, 2008).

Parents' Involvement in the Assessment Process

Lewis and Doorlag (1995) suggested that education authorities should, however, encourage the involvement of parents beyond this minimum statutory requirement. In their opinion, co-operation by parents will be helped if the authority provides them with written information about their rights and duties as parents, and the ways in which it hopes to involve them in the 'proposed assessment. Lewis and Doorlag (1995) indicated that parents should therefore be given written guidelines covering the authority's duties and practice in recording to assist them to contribute to the assessment. Additionally, education authorities should also ensure that parents are informed about the purpose and implications of opening a Record of Needs, the procedures involved, and their rights to participate in the process (Lewis & Doorlag, 1995; Cleaver, 2006).

Furthermore, Lewis and Doorlag (1995) suggested that education authorities should ensure that all advice- written or oral- can be easily understood and is well presented. Premature references in communications to enforcement powers under the 1980 Act, such as an education authority's powers to compel parents to submit children for assessment, are unhelpful and may, understandably, be regarded by parents as threatening and coercive (Lewis & Doorlag, 1995).

It is worth considering in corresponding with parents whether, on some occasions, a reference to a statutory provision may be best explained without repeating all of the words contained in the Statute, but care must be taken to be accurate. Increasing parent participation for students with disabilities will increase

student achievement. Technical assistance and training will be provided to assist districts with parent involvement (Lewis & Doorlag, 1995).

A complementary way of assessing a child with disability is to obtain information about the child from parents and guardians using a structured questionnaire (form). Lewis and Doorlag (1995) indicated that the questionnaire to be filled in for each child assessed should contain all the necessary information about the child and its family. The information sought includes the following: the child's name, age, address and school; - the parent's name and address; information about the pregnancy and birth; history of the child's development; description of the child's handicaps e.g. when the parent first observed problems, hearing, visual, physical and/or mental problems, if any; description of the problems if indicated and kind of treatment previously given to the child (Lewis & Doorlag, 1995).

The same basic questions should be used for such problems as vision, mental and physical disabilities and epilepsy; and if the child is at school, description of the child's progress at school (Lewis & Doorlag, 1995). After the assessment of a child the result of the test should be explained to the parents, telling them what might be the best way forward to the child. It is often possible after the assessment to guide the parents about how they can train their child (Lewis & Doorlag, 1995). If a child is assessed at the school the teachers should be given this same information.

Summary of Literature Review

The research studies reviewed in this chapter suggested that assessment centres are affected by several factors. As found in the literature, inadequate logistics, personnel, lack of hearing aids among others. From the foregoing literature, it was apparent that little or no studies done in relation to factors affecting efficacy of assessment centres in assessing children with special educational needs. This is an indication that information on the efficacy of the assessment centres is lacking in developing countries such as Ghana.

The related literature reviewed in this chapter was largely based on studies conducted in other countries such as the United States of America. This is because in the developing countries, such as Ghana, very little information was documented on the efficacy of the assessment centres in assessing children with special educational needs.

This gave an indication that there existed a gap in the literature with regard to developing countries such as Ghana. Indeed, more studies are needed to support the findings of most studies conducted regarding the efficacy of the assessment centres in assessing the children with special educational needs.

In the light of this, the present study sought to fill the gap in the literature since the efficacy of the assessment centres are central to assessing children with special educational needs. It is expected that the findings from this study would serve as a contribution to knowledge and encourage stakeholders to ensure that assessment centres are always given the needed attention.

CHAPTER THREE

METHODOLOGY

The methodology for this study provides an understanding of how the research was conducted and organised. The chapter also describes the characteristics of the research design, and explains the survey methods used in obtaining information from respondents, and how respondents were selected. In addition, it describes how the data were collected and processed. Included in this chapter is the description of the survey instrument. Finally, the chapter describes how the data collected were analysed.

Research Design

The research design employed in this study was the descriptive survey. The research design for this study included both a qualitative and quantitative approaches, where triangulation, which refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings, was employed. For the purpose of this study, triangulation was employed since multiple research designs were used.

The quantitative approach was employed through the use of a structured questionnaire whereas the qualitative design was employed through the use of an interview guide. It is important to state here that, multi-method studies are not

limited to the blending of qualitative and quantitative research but can also appear in the artful combination of different quantitative methods in the same study. Thus, the study made use of qualitative method (semi-structured interview) and quantitative method (structured questionnaire).

The use of multiple method design for this study was due to the fact that the method tested the consistency of the findings obtained through the different instruments. Triangulation in this study increased chances to control, or at least assess some of the threats or multiple causes that could influence the final results (Bruce, Green & Georgeson, 2003). Most of the social research is founded on the use of a single research method and as such may suffer from limitations associated with that method or from the specific application of it (Bruce et al., 2003). Triangulation, however, offers the prospect of enhanced confidence.

A research design refers to the strategy to integrate the different components of the research project in a cohesive and coherent way which is a means to structure a research project in order to address a defined set of questions (Ekuri, 1997 & Bell, 1999). Thus, a design is used to structure the research, to show how all the major parts of the research project which includes; the samples or groups, measures, treatments or programs, and methods of assignment working together to address the central research questions. A research design provides the glue that holds the research project together.

According to Leedy and Ormrod (2005), descriptive survey examines a situation as it is. They indicated that the descriptive survey does not involve changing or modifying the situation under investigation, nor is it intended to

determine cause-and-effect relationships. This design has been selected because it has the advantage of producing good responses from a wide range of people. It involves accurate and objective collection of data to describe an existing phenomenon (Nwadinigwe, 2005 & Ekuri, 1997).

Survey research, according to Nwadinigwe (2005), studies both large and small populations by drawing samples from them. Thus, descriptive survey deals with relationships among non-manipulated variables. It also seeks to collect data in order to answer questions concerning the current status of the subject of the study (Nwadinigwe, 2005 & Gay, 1992).

Descriptive survey provides evidence concerning an existing situation or current conditions; hence surveys provide a more accurate picture of events and seek to explain people's perception and behaviour on the basis of data gathered at a point in time. This design was used because the study considered people's attitudes and perceptions towards efficacy of the assessment centres.

Best and Kahn (1998) indicate that descriptive research is concerned with the condition or relationship that exists, such as determining the nature of prevailing conditions, practices and attitudes, opinions that are held, processes that are going on, or trends that are developed. To Cohen, Manion and Morrison (2004), survey is to scan a wide field of issues, populations and programmes in order to measure or describe any generalised features. It actually provides a relatively simple and straight forward approach to the study of attitudes, values, beliefs and motives.

Fraenkel and Wallen (2000) also state that obtaining answers from a large group of people to a set of carefully designed and administered questions, lies at the heart of survey research. Additionally, they affirm that descriptive survey aims predominantly at describing, observing and documenting aspects of a situation as it naturally occurs rather than explaining them.

Target Population

The target population for this study was made up of the heads, assessment teams and parents of the three assessment centres. For the purpose of this study, the assessment centres specialised in hearing were used. These centres were Achimota Assessment Centre, Winneba Assessment Centre, Hohoe Assessment Centre, 37 Military Hospital, Komfo Anokye Hospital, Jamasi school for the deaf and Sekondi school for the deaf. This population was selected because the respondents from the centres have the same characteristics, but for the sake of this study only three of the hearing assessment centres were involved which are Winneba, Hohoe and Accra Assessment Centres.

Parents were also considered as part of the population for this study due to the fact that, in every effective assessment process, parents of children with special educational needs are to be involved. Since a complementary way of assessing a child with disability is to obtain some basic information about the child from parents and guardians to help the assessment team in the process. Parents' involvement in this study could uncover some of the challenges and frustrations they encounter in the course of pursuing assessment for their children

with special educational needs and the role they play in the whole assessment process.

Sample and Sampling Procedure

The sample size for the study was three assessment centres and these were Achimota Assessment Centre, Winneba Assessment Centre, and Hohoe Assessment Centre. A non-probability sampling method of purposive sampling was used to select the centres. The participants from these centres were assessment team members and parents. Purposive sampling was used in selecting the head and his assessment team. In purposive sampling, sample elements judged to be typical or representative from the population is handpicked (Tuckman, 1994). According to Shaughnessy, Zechmeister and Zechmeister (2000) in purposive sampling, the investigator selects the element to be included in the sample on the basis of their special characteristics. The individuals selected are commonly those who have an expertise or experiences related to the purpose of the study.

The participants included in the study were selected from the assessment centres sampled, on the basis of their judgment of their typicality or particular knowledge about the issues under study. All the participants from the selected assessment centres were involved in the study because they were not many. This was considered as the most appropriate because they were experts in the area of assessing children with special educational needs.

The assessment team was responsible for administering statutory assessments and the production of statements of special educational needs. Thus, to extensively understand issues confronting assessment centres in terms of delivery, the assessment team was in a better position to give the factors that affect its effectiveness, as it was directly involved in the assessment process and procedure. In view of this, the assessment team was purposively sampled because they were the specialists in the area.

The convenience sampling method was used to sample parent participants. This method involved the sample being drawn from that part of the population which is close to hand (Shaughnessy et al., 2000). That was a sample selected because it was readily available and convenient. This sampling method was considered as the most appropriate because it was difficult to identify parents whose children had special educational needs. Thus, those who visited the centres were used as they were the most convenient. This sampling procedure was used because the cost of data collection was lower, data collection was faster, and it was possible to ensure homogeneity and to improve the accuracy and quality of the data collected because the data set was smaller. In all, a total sample size of 120 respondents participated in this study. Table 1 shows the distribution of the respondents sampled from the target population.

Table 1

Distribution of Respondents from the Assessment Centres Sampled

Respondents	Centre			Number
	Achimota	Winneba	Hohoe	
Heads	1	1	1	3
Assessment Team	41	18	22	81
Parents	12	12	12	36
Total	54	31	35	120

It is important to state here that, many researchers have advocated that the larger the sample size selected for a study, the more accurate the study would be. However, the accuracy of a research study also depends on how the sample is selected for the study. The sample size of 120 was considered as adequate to generate accuracy and high precision from the study. As all the parties involved in the assessment process of children with special educational needs have been considered in the sample the results to be generated stand to give a true reflection of the exact situation on the ground. In addition, both rural and urban assessment centres have been included in the sample in order to make it representative.

Instruments

Two data collection instruments were used to collect the data from the respondents. These are a structured questionnaire and an interview guide. The questionnaire was used for sampling views from heads and the assessment team

whereas the interview guide was used to sample an in-depth view from the parents (see Appendix C).

Two sets of questionnaire were used to elicit information for the study, one for the heads and the other for the assessment team at the assessment centres. The heads and the assessment team sampled responded to items on the questionnaires designed for them. Each questionnaire is divided into sections based on the research questions for the study. The questionnaires had closed-ended items of the five-point Likert-type scale from Strongly Agree to Strongly Disagree.

Section A of the questionnaire for the heads, elicited basic information concerning the heads. These included their educational background, age, gender, years of experience and the present rank in service. Section B elicited information from the heads about parents' involvement in the assessment process; whereas Section C dwelt on sources of funding for the assessment centres. Section D sampled views from the heads on support systems available for the assessment centres and Section E elicited information on improving the assessment centres.

In the case of the assessment team, the questionnaire was employed where the respondents responded to the items on the questionnaire with no assistance. This, again, was considered the most appropriate because they were literates and could respond to the items. They read and understood the content of the questionnaire without any influence. Thus, the self-completed questionnaire offered the advantage of anonymity, and allowed the respondents to complete them at the time that was convenient for them.

The questionnaire for the assessment team was divided into seven Sections. Section A consisted of items on the basic information about members of the assessment team. These included their educational background, period for which they had been working with the assessment centres. Section B had items that asked the heads about the availability of materials and logistics; whereas Section C dwelt on the procedures used at the centres in assessing children with special educational needs.

Section D collected views on challenges confronting assessment centres. Section E collected information on sources of funding, Section F on parental involvement and Section G on support systems. Thus, the questionnaire was used to elicit relevant information from the heads and assessment team because they offered the advantage of each person answering identical questions, which increased the reliability of the items.

Concerning the parent participants, the interview guide was used through a focus group discussion. This was to obtain first hand information from the parents. In an interview, the investigator comes face-to-face with a person and obtains verbal responses to questions which he/she asks (Nwana, 1992). According to Anthony-Krueger and Sokpe (2006), an interview is a face-to-face encounter between the researcher and his/her assistants and the respondents to obtain verbal responses to questions. They outlined the following principles to be observed:

- a. Questions for the interview should be rehearsed well ahead of time before the interview,

- b. The investigator should establish a rapport and maintain it with the interviewee. The establishment of rapport is to develop a friendly and cordial relationship with the interviewee before interviewing begins, and
- c. A reliable way of recording the information obtained should be adopted.

In addition to the questions on the interview guide, a set of probable responses were supplied and the responses from the parents recorded appropriately. At the panel discussion the questions were read out from the interview guide and the answers recorded thereafter. Nwana (1992) intimated that the morale of a respondent may sag if he/she has to spend a minute or two after each question waiting for the investigator to fill up his or her form while the interview is still in progress. In order not to bore the parents very few minutes were spent on recording responses to each question.

This was considered the most appropriate method because it made way for parents who were illiterates, and hence found it difficult to respond to the items on the questionnaire. In order to avoid data collector bias, care was taken not to influence the responses from the participants. The panel discussion method of interviewing the parents provided the opportunity to probe for verification, which helped to increase the precision under which the study was conducted. During the panel discussion, there was the opportunity to freely move the conversation in any direction of interest that came up.

The panel discussion allowed for the clarification on complex or sensitive issues. Thus, it enhanced the ability to clarify answers by probing matters that emerged in the course of the interview. The items on the interview guide for

parents were seven in number (see Appendix C). The interview guide consisted of items such as, the major challenges encountered by the assessment centres which affected their effectiveness, their understanding of the procedures involved in the assessment process, among others.

Conducting the interview, the researcher met with the heads of the three centres to discuss the period appropriate for the interview. A consensus was reached for the day of the interview with the parents. However, during the meeting with the parents for the first time, the researcher explained the purpose of the study. The focus group discussion lasted for approximately 30 minutes. In collecting the views of the parents, electronic devices such as recorders were used during the interview process. To avoid the challenges often associated with in-depth interviews, the researcher made sure interviewees are comfortable and appear interested in what they are saying by creating a very good rapport. Effective interview techniques such as using appropriate body languages, and keeping personal opinions in check was also employed. However, permission was sought from the parents for the recording process.

Qualitative data derived from focus groups are extremely valuable when vivid and rich descriptions are needed. Focus groups are an increasingly popular way to learn about opinions, attitudes and behaviours. According to Lee Atwater (2004), the conversations in focus groups “give” the researcher a sense of what makes people tick and what is going on in their minds and lives that can’t be gotten from survey data. Focus groups are not pools but in-depth, qualitative interviews with a small number of carefully selected respondents brought together

to discuss a host of topics. For this study, a focus group discussion was used to solicit information from parents with children with special educational needs. In all, three focus group discussions were conducted for the three selected assessment centres under study.

The researcher used focus group discussion to solicit information from parents because, it offered the opportunity for respondents to deliberate on the various research questions especially that concerning parents and come to a consensus. Also, unlike the one-way flow of information in a one-on-one interview, the focus group discussion generated data through the give and take of group discussions. Listing as parents share and compare their different points of views on the subject matter informed the researcher not just about what they think, but why they think the way they do.

The focus group discussion was conducted by the researcher himself, and one research assistant who was oriented as to what role he was to play during the discussion. The research assistant basically helped in the recording of data. In other words, tape and written records were used to record data during the focus group discussion. The researcher made a note of the tape position (counter) from time to time in the margin of the notes, which made the location of specific points easily on the tape. However, before using these devices, the consent of participants was sought.

Since it would be difficult for the researcher to identify parents with children with special educational needs, the researcher used parents who visited the assessment centres as at the time of his visit to the centres. A random

approach to a number of parents was made after which the researcher explain his intention of wanting them to participate in the focus group discussion. Some however declined. However the need number for the discussion was obtained finally. In all 36 parents were selected for the focus groups discussion, 12 each selected from each assessment centre.

Of the 12 parents for each centre, 6 males and females were selected. The composition of the focus groups was done based on the homogeneity and similarity of the members. Thus parents selected with a common interest or experience (e.g. a particular group consisted of males whiles other of females) were brought together to form the groups making it easier for them to have a productive discussion. Questions used under this type of data collection were open-ended and leading questions were also avoided by. In all, hour and half hours was used for the discussion.

For ethical purpose, participants were notified of the aims, methods, anticipated benefits and the right to abstain from participation in the research as well as the right to terminate participation at any time. Participants were assured of anonymity and confidentiality of their responses. In other words, the identity of individuals from whom information was obtained in the course of the study was kept strictly confidential. This was done by making the questionnaire anonymous where the names of respondents were collected. An introductory letter from the University of Cape Coast, Department of Educational Foundations indicating that the study was solely for academic purposes was used.

Validity and Reliability

Validity is ‘the extent to which an indicator accurately measures a concept’ (Fielding & Gilbert, 2000, p. 11). The focus of validity (Ary, Jacobs & Razavieh, 2002) is not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument. In other words, an indicator of some abstract concept is valid to the extent that it measures what it is purported to measure.

A major source of error in surveys is the improper wording of questions on questionnaires as a result of the manner in which the questionnaire has been designed. In cases where questions are ambiguous and are not explained to the respondent, errors can be made. A considerable amount of discussion and experimentation were done to fine-tune the questionnaire content and wording before its final administration.

In the case of the present study, a review of related literature and expert judgements were used to determine the content or face validity of the items on the questionnaires and interview guide. In determining the face validity of the questionnaires and interview guide, two senior lecturers from the Department of Educational Foundations and one senior officer from Winneba Assessment Centre, were used. They assessed the items and made significant corrections and contributions, which helped in improving upon the instrument. In addition, few colleague students made valuable contributions concerning the face and content validity of the questionnaires and interview guide. This was done to sharpen the items that were ambiguous and difficult to understand.

In addition, the pilot-testing of the questionnaires helped in determining the reliability of the items. Reliability refers to the extent to which a measure would earn consistent results each time it is used (Ary, Jacobs & Razavieh, 2002). They argue that if items are well constructed, twenty to twenty-two items would have satisfactory reliability. For the purpose of this study, the responses to 20 items on the instruments were used in determining the internal consistency of the items.

Pilot Testing

After the construction of the research instruments (questionnaires and interview guide), a pilot testing was to discover likely weaknesses, inadequacies, ambiguities and problems in the items on the questionnaire so that they could be corrected before the actual data collection exercise. The items on questionnaire were pilot-tested at the Sekondi School for the Deaf Assessment Centre. For the purpose of the pilot-testing, one head and 18 members of the assessment team were randomly selected to respond to items on the questionnaires respectively.

The purpose of the pilot-testing of the items was to verify whether the respondents understood the items, whether the order of the items was acceptable, and how long it took to obtain the information. Pilot-testing, also, helps in determining the internal consistency of the items on the instrument. Babbie (2005) states that testing for internal consistency helps to eliminate statements that are ambiguous or that are not of the same type as the scale. This helped in ensuring

that the various items were consistent in drawing out dependable information from respondents.

A reliability test was performed using Cronbach's Alpha to establish the internal consistency of the items on the questionnaire. During this test, the items which were found to have negative inter-item correlations were re-constructed. The Cronbach's Alpha determined for 11 items on questionnaire and 25 items on questionnaire were .841 and .789 respectively. George and Mallery (2003) provide the following rules of thumb: " $\geq .9$ – Excellent, $\geq .8$ – Good, $\geq .7$ – Acceptable, $\geq .6$ – Questionable, $\geq .5$ – Poor, $< .5$ – Unacceptable" for determining the Cronbach's Alpha (p. 231). By these rules of thumb, the high values for Cronbach's Alpha coefficients obtained, indicate a good internal consistency of the items.

Through the pilot-test, important and useful alterations were made in the data collecting instruments, and therefore, assisted in analysing data for the main study more efficiently. The pilot-test stage of the study served as a feasibility study. This ensured that the ideas or methods behind the research idea were sound, as well as to "work out the kinks" in a study protocol before launching the main larger study (Ary, Jacobs & Razavieh, 2002). Problems that occurred in the response process, i.e. the process of interaction between the instrument (questionnaire) and the respondent were rectified.

Data Collection Procedure

The data used in the study were collected personally from three assessment centres sampled. A letter of introduction (see Appendix D) from the Head of Department, Educational Foundations, University of Cape Coast and a personal letter of information to the heads of the three assessment centres (see Appendix E). In order to collect data from the sampled assessment centres, permission was first sought from the Heads of Assessment Centres (see Appendix F). The data collection was carried out in two phases. Stage I, which was the distribution stage of the questionnaire, took one week to complete and Stage II, which was collection of the completed questionnaire stage also took three weeks to complete. This was followed by self-administration of the survey instruments, which began on 6th April, 2010.

At Hohoe assessment centres, 19 questionnaires were administered to the head and his assessment team. Similarly, at the Winneba assessment centre, 22 questionnaires were administered to the head and his assessment team while at the Accra assessment centre, 42 questionnaires were administered to the head and his team.

After one week of distribution of the questionnaire, collection of the completed questionnaire began. The few school administrators who had finished responding to the items on the survey instruments returned them. Thus, after the first week of distribution, both distribution and collection of the survey instruments were simultaneously done for two weeks. At the end of the third

week, distribution of the survey instruments had been completed and collection continued until 18th December, 2009.

Data Analysis

The statistical software used for analysing data from this study would be the Statistical Package for the Social Sciences (SPSS) now, the Statistical Product for Service Solutions. However, the statistical tools employed included pie chart, bar graph, tables of summary statistics, percentages and frequency counts, Analysis of Variance (ANOVA).

According to Sarantakos (1998), the frequency and tables enable the researcher to gain an overall view of findings, to identify the trends and to display relationship between parts of the findings. In view of this, frequency tables and graphs were used to show the visual distribution of certain variables. In addition, the findings from interview guide were used to support or deny the findings from questionnaires.

The results from the study were analysed based on each research question. In analysing research questions one and three, statistical tools such as tables of summary statistic, percentages and chi-square were used. The statistical tools used to analyse research questions two, four and five were frequency counts and percentages. Research questions six and seven were analysed using percentages and ANOVA.

CHAPTER FOUR

RESULTS AND DISCUSSION

This purpose of this study was to find out factors affecting efficacy of Assessment Centres for children with Special Education Needs. This chapter is basically the section for the presentation and discussion of research findings. In this chapter, the data collected from the field are analysed and the findings emerging from the analysis are presented and discussed with their possible implications. The chapter has however been divided into subsections where each section contains the findings for each objective and research question of the study.

The first section contains the analysis of data on the demographic characteristics of respondents. Statistical tests employed to adequately answer the research questions include, descriptive statistics such as frequencies and percentages, Chi-square test of independence and Analysis of Variance (ANOVA). The statistical package used for the data analysis is Statistical Package for the Social Sciences (SPSS), now Statistical Product for Service Solutions, version 16.

Demographic Data Analysis

Under this section, the demographic information of respondents is analyzed to help the researcher obtain relevant information and relate them to

assessment of children with Special Educational Needs (SEN). Demographics of respondents analyzed in this section include gender, age, academic qualification, years of working in Assessment Centre, professional qualification and rank in GES. The marital status of respondents, for example, was not included in this study as it is considered not to be of significant importance.

In all, a total of 81 Assessment Team members, three Heads of the Assessment Centres (all males) and 36 parents of children with SEN, 12 each (6 males and 6 females) responded to the questionnaire, interview and focus group discussion respectively. Out of the 81 Assessment Team members, 70 (86%) were males while 11(14%) were females. In other words, a very high percentage of the respondents from the Assessment Team were males. This could probably be that the profession of assessment of children with Special Educational Needs (SEN) has not been so much appreciated by females as compared to males. This is however surprising since women are thought to love children more than the men. Figure 4 shows the graphical distribution on the gender of respondents in the Assessment Team.

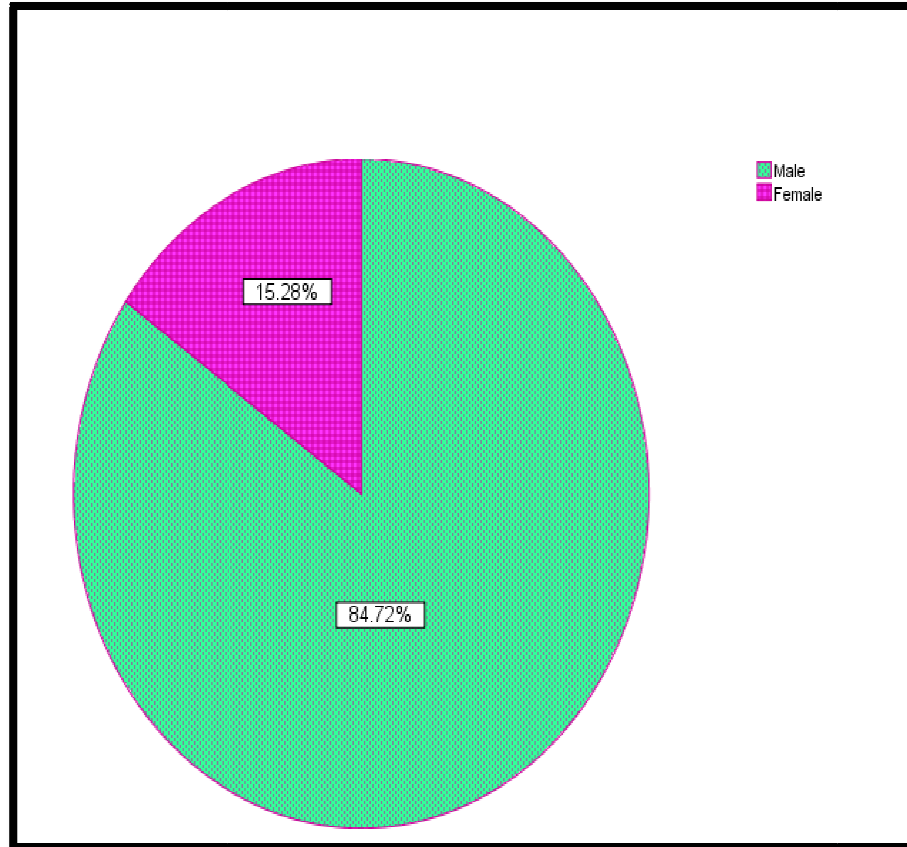


Figure 4. Gender Distribution of Respondents (Assessment Team)

Source: Field Data (2010)

However, a cross-tabulation analysis performed between the gender of respondents and their corresponding Assessment Centres showed that, of the 11 females who work with the centres, majority being 8 constituting 73% were from the Winneba Assessment Centre, while none was recorded from the Hohoe Assessment Centre. This was due to the fact that the Winneba Assessment Centre is a multipurpose (Hearing and Speech) centre that has more staff, of which the three women are part.

The age of respondents was also analyzed. The analysis results indicate that, there were no respondents within the age group ‘Less than 30 years’ among

the Assessment Team. However, most (49%) of the respondents were in the age category 'Over 50 years', followed by '41 - 50 years', (47%). For the age group, '30 - 40 years', only 4% was recorded.

Analysis of the academic qualifications of respondents also revealed that almost half (42%) hold a Master's Degree. It is also important to state here that 3 (4%) respondents however hold a PhD. In other words, of the 11 females who participated in the study, 1 (9%) holds a PhD, 7 (64%) Masters degree, and 3 (27%) hold Bachelors degree. There was however no woman with an HND. Table 2 below shows the results.

Table 2

Academic Qualification of Assessment Team

Gender	Academic Qualification					Total
	PhD	Masters	Bachelor	Diploma	Others	
Male	2	28	33	9	1	70
Female	1	7	3	0	0	11
Total	3	35	36	9	1	84

Source: Field Data (2010)

As indicated in Table 2, it can be said that most of the respondents are highly educated. Also, a critical analysis of the analysis in Table 2 of the gender of respondents and their educational qualifications implies that, to work with Assessment Centres, one probably needs a higher educational qualification, thus at least a first degree. This might be why just a small proportion of women were

found working at the Assessment Centres, since there are more males with higher educational qualification as compared to females.

The higher educational qualification found among respondents might also account for the higher age groups recorded. The clustered bar chart in Figure 5 shows the graphical representation of the data in Table 2.

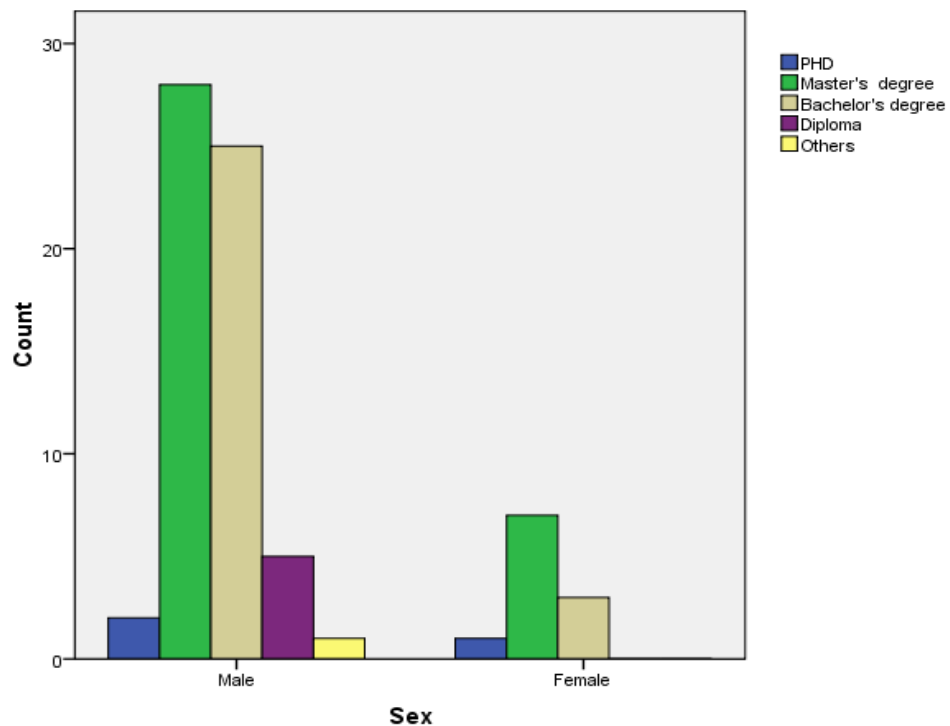


Figure 5. Relationship between respondent's academic qualification and gender

The period for which Assessment Team members have worked with the centre was also analyzed. The analysis revealed that more than half (58%) have worked with the Centres for '13 years and over' whereas those with 'Less than 6 years' were the least in number (19%). The frequency table in Table 3 shows the analysis result.

Table 3

Period of Working with Assessment Centre

Period (in years)	Frequency	Percent
Less than 6	16	19
6 – 12	19	23
13 and above	49	58
Total	84	100

The Accra Assessment Centre recorded the longest period for which team members have been in the Centre, whereas Winneba was one with staff recorded the least. However, though most of the Assessment Team have worked with their Centres for ‘13 years and above’, it is interesting to note that two of the Heads of these Assessment Centres have worked with their Centres for ‘Less than 6 years’. This is however good to allow for efficient monitoring of the performance and activities of the Heads, since the longer they stay at a centre, the more likely it is for them not to be productive.

Analysis of the profession of respondents in Table 4 revealed that Audiologists 4 (5%) were the least professionals identified among respondents, 24 (28%) of the respondents were Special Education Teachers (SET), while Social Workers 12 (15%) and 24 (28%) the respondents were Psychologists. Besides these ones, about 20 (24%) of the respondents were also in other professions of which most were lecturers.

Table 4

Profession of Heads and Assessment Team Respondents

Profession	Frequency Count	Percentage
Audiologist	4	5
Special Teacher	24	28
Social Worker	12	15
Psychologist	24	28
Other	20	24
Total	84	100

Research Question 1

Research Question 1 was stated as follows: What are the materials and logistics used in assessing children with SEN Assessment Centres? In answering research question 1 frequency count, percentages and Chi-square analysis were used. The respondents were given a five-point scale which measured the availability of materials and logistics such as audiometer, otoscope and tympanometer in the Centres. The results obtained show that (47%) confirmed that there are no materials and logistics for the centres, whereas 46% also confirmed that, materials and logistics are not adequate (less available). Here again the availability of materials and logistics across the centres was also examined.

Testing of Null Hypothesis 1

To do this, Null Hypothesis 1, “There is no significant relationship between the Assessment Centres and the availability of materials and logistics” was tested using the Chi-square test to determine whether the availability of the materials and logistics is dependent on the location of the centres. The result obtained is presented in Table 5.

Table 5

Relationship between Assessment Centres and Availability of Logistics and Materials

Centre	Availability of Materials and Logistics				Total
	HA*	A	LA	U	
Hohoe					
Count	0	0	8	14	22
Expected Count	.6	.8	11.2	9.4	22.0
%	.0	.0	20	41.2	27.2
Winneba					
Count	2	0	9	7	18
Expected Count	.5	.8	8.2	8.5	18.0
%	0	0	22.5	20.6	22.2
Accra					
Count	0	5	23	13	41
Expected Count	.9	3.4	20.6	16.1	41.0
%	.0	.0	57.5	38.2	50.1
Total					
Count	2	5	40	34	81
Expected Count	2.0	5.0	40.0	34.0	81.0
%	100	100	100	100	100

$(\chi^2 = 13.933, \alpha = 0.05)$

HA* - Highly Available, A - Available, LA - Less Available and U - Unavailable

The result of the Chi-square analysis from Table 5 indicates that there is a significant ($\chi^2 = 13.933, p = .030$) relationship between the Assessment Centres and

the availability of materials and logistics. In other words, there is a higher probability that, the availability of materials and logistics is dependent on the location of the Assessment Centres; and that rural Assessment Centres are less likely to have adequate assessment materials and logistics as compared to the ones in urban (Accra) and pre-urban (Winneba and Hohoe).

The study further examined the specific materials and logistics which are unavailable, less available and available across the centres. Materials for pure tone test and tympanography were found to be more available than any other material or logistics across the Centres. However, the following were also found inadequate or not to be available; hearing aids, audiometers, otoscopes, tape recorders, tympanometers. Audiometers are probably unavailable because of the lack of staff in the area of audio therapy, but this cannot be said of the other materials. Thus, the answer to Research Question 1 is that the materials and logistics used in assessing children with SEN in the assessment centres include hearing aids, audiometers, otoscopes, tape recorders and tympanometers.

Research Question 2

To answer the research question 2, ‘what are the procedures employed in assessing children with SEN at Assessment Centres?’, a five-point Likert type scale was employed of which seven important assessment procedures were given for respondents to indicate which ones they employ in the process of assessment of children with Special Educational Needs. This is to assess whether the appropriate assessment procedures are being employed. The findings obtained

showed that in general, a significant number of 80 (95%) do employ the appropriate procedures such as reviewing assessment services, pre-referral services, eligibility, monitoring and evaluation in assessing children with special educational needs, which is, however, expected.

Table 6

Responses of Heads and Assessment Team on Procedures Employed in Assessing Children with SEN

Item	SA	A	U	D	SD	Total
1. Reviewing assessment services	33(40%)	46(55%)	0(0%)	3(3%)	2(2%)	84(100%)
2. Pre-referral services	41(49%)	39(47%)	0(0%)	2(2%)	2(2%)	84(100%)
3. Eligibility	31(37%)	49(59%)	0(0%)	3(3%)	1(1%)	84(100%)
4. Monitoring and evaluation	40(48%)	41(49%)	0(0%)	3(3%)	0(0%)	84(100%)

These procedures employed include; reviewing of the assessment services to check its efficacy in meeting children’s needs, monitoring of children’s progress daily, as well as different professionals determine children’s special needs. In other words, it is a good practice to find out that, there is constant review of the entire assessment process for its effectiveness.

This finding to some extent confirms LaRue (1989) that assessment is made a continuous process with periodical evaluation and re-evaluation. That is to say that, the Assessment Centres have Special Educational Needs (SEN) which sets out the child's needs and the help they should have. However, a further

analysis performed revealed that, even though the centres evaluate the entire program in terms of reviewing it to check its efficacy in meeting children's needs, the period for which these reviews are done is too long.

However, further analysis performed showed that many children are screened with the help of otoscopes, audiometers and tympanometers for at risk conditions. This may be possible because of the lack of the necessary materials and logistics which the centres lack badly compelling them to screen the children at risk conditions. Thus, the answer to Research Question 2 is that several procedures are employed in assessing special educational needs at the Assessment Centres. The procedures include reviewing of the entire assessment programme and monitoring of children's progress daily and the determination of children's special needs.

Research Question 3

Research Question 3 was stated as follows: What are the sources of funding in assessing SEN? In answering this research question, an analysis performed using frequency counts and percentages on the funding support system across the centres. As shown in Table 7, 52 constituting 62% of the respondents indicated that NGOs were the major sources of funding.

Table 7

Responses of Heads and Assessment Team on Sources of Funding

Sources of funding	Responses		Total
	Yes	No	
MMDA	44 (52%)	40(48%)	84(100%)
NGOs	52 (62%)	32(38%)	84(100%)
Philanthropist	10(12%)	74(88%)	84(100%)

Key:

MMDA – Metropolitan Municipal and District Assemblies

NGOs – Non Governmental Organisations

Further analysis revealed that the percentage of NGOs (52.9%) providing funding support to the Accra Assessment Centre is over 47.9% higher than that of the percentage (5.0%) of NGOs providing support to the Hohoe Assessment Centre. A similar result is observed for that of Winneba where the source of funding from NGOs is less than that of Accra.

It can be inferred from this finding that the probability of Assessment Centres in rural areas getting support from NGOs is less than that of urban (Accra) and pre-urban (Winneba and Hohoe) areas; and that NGOs and Philanthropists are more likely to limit their funding support system to the urban and pre-urban areas. This result however seems so surprising since the activities of NGOs are mostly located in the rural areas. On the other hand, probably because most of the Special Education Schools are located in the urban and pre-

urban areas, hence the support of NGOs may tend to be felt more in those areas as compared to the rural areas.

Further analysis revealed that the funding support for the centres is different and that, the pre-urban centres do not receive much funding support as the urban centres. This is presented in Table 8.

Table 8

Funding Support across Assessment Centres

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	.571	2	.286	4.827	.011
Within Groups	4.082	69	.059		
Total	4.653	71			

Testing of Null Hypothesis 2

Also, as part of investigating the sources of funding for the Assessment Centres, the null hypothesis “there is no significant relationship between the location of the Assessment Centres and their sources of funding” was tested. A Chi-square test was performed and it was realized from the test that, there was a significant relationship ($\chi^2 = 28.546$, $p = 0.001$) between the location of the Assessment Centres and their sources of funding.

There could be the idea of under-reporting on children with SEN in rural areas by the media. The results however support that of Obeng (2007) that in Ghana, there are indications that access to education for many with disabilities is an urban phenomenon. That is identification and assessment of children with

Special Educational Needs tends to be an urban phenomenon. Thus, the answer to Research Question 3 is that the key sources of funding in assessing SEN are the non-governmental organisations.

Research Question 4

To obtain answers to the research question 4, ‘what support systems are available for Assessment Centres?’ the supports available for the Assessment Centres were analyzed by examining if Assessment Centres do obtain funding support from any source. The results obtained revealed that indeed the Centres do obtain some funding support. However, to further examine the funding support system, the sources of funding were also examined of which the corresponding results revealed that about 56% of the support systems received for the Assessment Centres were from Metropolitan, Municipal and District Assemblies (MMDA) followed by non-governmental organisations (NGOs) with a 35%. The analysis result is shown in Table 9.

Table 9

Responses of Heads and Assessment Team Members on Support Systems

Organisations assisting	Responses		Total
	Yes	No	
MMDA	47 (56%)	37(44%)	84(100%)
NGOs	29(35%)	55 (65%)	84(100%)
Philanthropist	8(9%)	76(91%)	84(100%)

On the other hand, the Central Government and Philanthropists, according to the analysis results from the focus group discussion, have not been very supportive to the Assessment Centres. The results further showed that though MMDAs have been very supportive in terms of funding to Assessment Centres, NGOs, on the other hand, besides funding support, play a significant role in assisting Assessment Centres in the identification of children with special educational needs. As a result, the answer to Research Question 4 is that the MMDAs and NGOs, in addition to funding support, help in identifying children with special educational needs.

Research Question 5

To answer the research question 5, ‘what are the procedures involved in placing children with SEN in educational settings at the Assessment Centres?’, a five-point Likert type scale was employed of which seven important assessment procedures were given for respondents to indicate which ones they employed in the process of assessment of children with Special Educational Needs. This was to assess whether the appropriate assessment procedures were being employed. The analysis result obtained in Table 10 showed that in general, a very high percentage (95%) of the respondents 84 (heads and assessment team) do employ the appropriate procedures in assessing these children, which is however what is expected.

Table 10

Responses of Heads and Assessment Team on Procedures Involved in Assessing Children with SEN

Item	SA	A	U	D	SD	Total
1. Screening	33(40%)	46(55%)	0(0%)	3(3%)	2(2%)	84(100%)
2. Referral from professionals	41(49%)	39(47%)	0(0%)	2(2%)	2(2%)	84(100%)
3. Evaluation by professionals	31(37%)	49(59%)	0(0%)	3(3%)	1(1%)	84(100%)
4. Educational placement	40(48%)	41(49%)	0(0%)	3(3%)	0(0%)	84(100%)

These procedures involved include; screening children for at risk condition, referral from professionals and evaluation by professionals determining the child’s special needs. In other words, there is constant evaluation of children with special educational needs in order to appropriately place them. This result to some extent agrees with LaRue’s (1989) assertion that assessment is made a continuous process with periodical evaluation and re-evaluation. That is to say that, the Assessment Centres have Statement Educational Needs (SEN) which sets out the child's needs and the help they should have.

A further analysis performed revealed that although the Centres evaluate the entire programme in terms of reviewing it to check its efficacy in meeting children’s needs, the period for which these reviews are done is too long. This is so because many children are screened for at risk conditions as a result of inadequate materials and logistics required at the Centres before placing them.

Thus, the answer to Research Question 5 is that the main assessment procedures involved in placing children with SEN in educational settings at the Centres are screening, referral, evaluation and educational placement.

Research Question 6

Research Question 6 was stated as follow: To what extent are parents involved in the education of their children with SEN? In answering Research Question 6, an interview guide was used to elicit information from the parents through a focus group discussion. The objective of this research question was to find out the extent to which parents with children with Special Educational Needs (SEN) were involved in the assessment of their wards. This result was also confirmed by the Heads and Assessment Team members where 72 (86%) indicated that supplying of information about their wards and giving their consent were the major roles parents play in the assessment process.

Table 11

Responses of Heads and Assessment Team Members on Parents' Involvement in Assessment Process

Item	Responses		Total
	Yes	No	
Are parents involved whenever there is assessment?	84(100%)	0(0%)	84(100%)
Do they supply information about their wards?	72 (86%)	12(14%)	84(100%)
Do they give their consent to assessment team?	79 (94%)	5(6%)	84(100%)
Do they supply some materials needed for their ward?	69(82%)	15(18%)	84(100%)

To obtain a good level of involvement, a focus group discussion was held for parents from the three Assessment Centres under study. However, parents' involvement in the following assessment procedures was found to be low.

- a. Remedial programs for learning disabled
- b. Follow up activities in schools and home
- c. Educational placement
- d. Diagnostic assessment

Results from the discussion indicated that parents were highly involved in the assessment processes of their wards. This finding was also supported by Heads of the three centres who indicated that parents are highly involved and that their involvement in the assessment process makes it much easier for the

Assessment Team to carry out assessment. This result supports Koray's (1998) assertion that increasing parents' participation in the assessment of students with disabilities will increase student achievement and help in the assessment process.

As a confirmation, the Heads and Assessment Team was also asked to respond to the idea as to whether parents are involved in the process or not. As shown in Table 11 it was however interesting to notice that 100% of the respondents indicated parents' involvement in the process. However, further responses showed that, though parents are involved in the assessment process, their involvement after placement of their wards in special schools further needs to be improved upon.

The study also examined the specific roles which parents play in the assessment process. The following roles were however indicated;

- a. Supplying of vital information concerning their wards such as circumstances leading to the disability, age of their wards, among others.
- b. Supplying assessment materials like hearing aid, ear mould when they can afford
- c. Giving consent to the Assessment Centres for the approval of their wards assessment
- d. Enhancing the screening process
- e. Guidance and Counselling

Testing of Null Hypothesis 3

Since supplying of materials often goes with some financial requirement, the study tested the Null Hypothesis 3 “there is no significant difference in the supply of materials by parents across the three centres”. The study performed an Analysis of Variance (ANOVA) at a 5% significance level to examine if there was any significant difference in the supply of materials by parents across the three centres. The analysis result is shown in Table 12.

Table 12

Relationship between parents’ ability to supply materials in the assessment process and location

Groups	N	Mean	SD
Parents from Winneba	12	4.17	.294
Parents from Hohoe	12	4.00	.000
Parents from Accra	12	9.91	.115

	Sum of Squares	Df	Mean Square	F	Sig
Between Groups	.765	2	.382	.640	.530
Within Groups	41.235	69	.508		
Total	42.0	71			

From the ANOVA results in Table 12, it is observed that, there is no significant ($p > .05$) relationship between the mean material supply of assessment materials and the location of parents with children with SEN. In other words, there is no significant difference in parents’ ability to provide materials for their wards across the Assessment Centres. It is also important to indicate that the mean

ability of parents to supply materials in the assessment process across the three assessment centres is shown in Table 12.

In addition, the result from the focus group analysis indicates that parents from the Accra Assessment Centre were more likely able to provide materials needed for their wards as compared to parents from the other two centres (Hohoe and Winneba). The Hohoe Assessment Centre however showed up as the centre with the least provision of materials by parents. It can therefore be inferred that, probably that parents with children with Special Educational Needs from Accra are better to do in terms of finances compared with parents of children with SEN of the other Centres; hence they are in a better position to provide for their wards. Children with Special Educational Needs from rural areas are more likely to face several challenges as against those from the urban and pre-urban areas in getting assessment from Assessment Centres and even Special Schools.

Usually, parents are likely to encounter certain challenges in the process of getting their wards for assessment. In response, the study investigated the challenges parents go through just to get this for their wards. It was observed that, finance is one main challenge, as well as the inability to effectively express themselves in the English language especially those from rural areas. Thus, the answer to Research Question 6 is that parents are highly involved in the education of their children with SEN as found in Table 12.

Research Question 7

Research Question 7 was stated as follows: What are the challenges confronting the Assessment of children with SEN at the Assessment Centres? To answer this research question, respondents were given a five-point scale which measured the availability of materials and logistics in the Centres. As part of investigating the challenges facing the Assessment Centres, the study sought to find out if there is an effective collaboration between the Centres and Special Schools.

As shown in Table 13 the result indicated that more than half 48 (57%) of the Heads and Assessment Team members who responded to the study instrument agreed that there is lack of effective collaboration between the Centres and Special Schools.

Table 13

Responses of 84 Heads and Assessment Team Members on Effective Collaboration across the Assessment Centres

Item	Response					Total
	SA	A	U	D	SD	
1. Lack of effective collaboration between centres and special schools	22(26%)	26(31%)	2(2%)	23(28%)	11(13%)	84(100%)
2. Lack of effective collaboration between centres and parents	6(7%)	23(27%)	3(3%)	16(20%)	36(43%)	84(100%)
3. Lack of effective collaboration among assessment team	14(16%)	8(10%)	1(1%)	32(38%)	29(35%)	84(100%)
4. Negative attitudes	25(30%)	56(67%)	0(0%)	2(2%)	1(1%)	84(100%)

This result on the collaborating between Assessment Centres and Special Schools to some extent does not support Christensen et al.'s (1987) ideology that in most Assessment Centres one would find an effective collaboration between the Centres and Special schools. However, the study found that there is an effective collaboration between parents and Assessment Centres which is

healthier for the effectiveness of the Assessment process. It was also found out that negative attitude of the public towards individuals with disability is a factor affecting the effectiveness of the Assessment Centres. This was revealed when 81 almost 100 percent (97%) of the respondents attested to the fact that the public has not been very supportive in the education of children with Special Educational Needs.

In commenting further on what the Heads and Assessment Team Members would like attention to be drawn, 60 members constituting 71% indicated that poor remuneration was a challenge. They also indicated that staffing across the various professions among the assessment team was a challenge confronting the centres.

As indicated in Table 14 the percentage of Head and Assessment Team members from the Winneba Assessment Centre (16%) who were audiologists for example, was higher than that of the Accra Assessment Centre (2%) and the Hohoe Assessment Centre (0%).

Table 14

Distribution of 84 Heads and Assessment Team Members by Profession across Centres

Profession	Assessment Centre		
	Hohoe	Winneba	Accra
Audiologist	0 (0%)	3 (16%)	1 (2%)
Special Teacher	9 (39%)	9 (47%)	6 (14%)
Social Worker	3 (13%)	2 (11%)	7 (17%)
Psychologist	9 (39%)	4 (21%)	11 (26%)
Other	2 (9%)	1 (5%)	17 (41%)
Total	23 (100%)	19 (100%)	42 (100%)

In other words, out of the 23 respondents from the Hohoe Assessment Centre, none is an Audiologist, while of the 42 respondents from the Accra Assessment Centre, had only one is an Audiologist. It can therefore be said that, although the Assessment Centres lack Audiologists, the Winneba Centre is better off as compared to the others. It is however surprising that the Hohoe Assessment Centre which is basically a Hearing Educational Centre rather lacks Audiologists.

Capacity building is very crucial to the development of every institution. In response, the study examined if Heads and Assessment Team members are given personnel training. It was noticed that 42 constituting over 50% of the team members have not undergone any further training for some time now. This could probably account for the reason why respondents indicated there was no effective collaboration between the Central Government and Assessment centres.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This section is basically the section under which inferences from the study is made. In other words, the summaries from the findings as well as the conclusions are made.

Summary of the Research Process and Findings

The purpose of this study was to examine the factors affecting efficacy of Assessment Centres for children with Special Education Needs. The study used the descriptive survey design. Specifically, both quantitative and qualitative designs were employed in addressing research questions that is questionnaire and interview guide were used to elicit the appropriate responses from the respondents

Three Assessment Centres (Winneba, Hohoe and Accra) constituted the target population of the study. The heads, assessment teams and parents from these centres participated in the study. In all 120 respondents were sampled using purposive and convenience sampling techniques. The purposive sampling technique was used to select the three heads and 81 assessment team members while 36 parents were selected using convenience sampling technique.

In order to address the purpose of this study seven research questions were raised. These are

- (1) What are the materials and logistics used in assessing children with SEN in Assessment Centres?
- (2) What are the procedures employed in assessing special educational needs at the Assessment Centres?
- (3) What are the sources of funding in assessing SEN?
- (4) What support systems are available for Assessment Centres?
- (5) What are the procedures involved in placing children with SEN in educational settings at the Assessment Centres?
- (6) To what extent are parents involved in the education of their children with SEN?
- (7) What are the challenges confronting the Assessment of children with SEN at the Assessment Centres?

A set of questionnaire and interview guide were constructed, validated and used to elicit information from the respondents. The questionnaire was pilot tested and the internal consistency of the items was obtained. A Cronbach's Alpha coefficients of .841 and .789 were obtained for items on questionnaire for heads and assessment team respectively.

In analysing the data collected, the data was organised and analysed using Statistical Product for Service Solution (SPSS) version 16. Both descriptive and inferential statistical tools were used in presenting the data.

Main Findings

First, in addressing research question one, an assessment of the availability of materials and logistics needed to run these centres revealed that these materials are either highly unavailable or less available. Specifically, the results obtained show that majority (47%) confirmed that there are no materials and logistics for the centres, whereas 46% also confirmed that materials and logistics are less available. The result of the Chi-square analysis indicates that there is a significant ($\chi^2 = 13.933$, $p = .030$) relationship between the Assessment Centres and the availability of materials and logistics. The study also found a significant relationship between the location of an Assessment Centre and the availability of materials and logistics.

Secondly, the research question two sought to assess whether the appropriate assessment procedures are being employed. The findings obtained showed that in general, a significant number 80 (95%) of the respondents did employ the appropriate procedure in assessing these children.

Thirdly, in relation to research question three the study found a significant relationship ($\chi^2 = 28.546$, $p = 0.001$) between the location of the Assessment Centres and their source of funding. For example, the percentage of NGOs (52.9%) providing funding support to the Accra Assessment Centre is over 47.9% higher than that of the percentage (5.0%) of NGOs providing support to the Hohoe Assessment Centre.

Fourthly, research question four sought to analyse the supports available for the Assessment Centres by examining if Assessment Centres do obtain

funding support from any source. The results obtained revealed that indeed the Centres do obtain some funding support. However, to further examine the funding support system, the sources of funding were also examined of which the corresponding results revealed that about 56% of the support systems received for the Assessment Centres were from Metropolitan, Municipal and District Assemblies (MMDA) followed by non-governmental organisations (NGOs) with a 35%.

Fifthly, research question five sought to assess the assessment procedures involved in assessing children with SEN. The analysis result obtained showed that in general a very high percentage (95%) of the respondents 80 indicated that the assessment procedures involved in assessing the children were appropriate. These procedures employed include; reviewing of the entire programme to check its efficacy in meeting children's needs, monitoring of children's progress daily, different professionals determine children's special needs etc.

Sixthly, parents' involvement in the assessment process was examined research question six. The results suggested that parents are highly involved in the process and that their involvement in the process makes it much easier for the Assessment Team. Responses from an interview with the Heads of the Centres showed that though parents are involved in the assessment process, their involvement after placement of their wards in Special schools further needs to be improved upon.

Finally, as part of investigating the challenges facing the Assessment Centres, research question seven sought to find out if there is an effective

collaboration between the Centres and Special Schools. The result indicated that more than half (57%) of the Heads and Assessment Team members who responded to the study instrument strongly agreed that there is lack of effective collaboration between the Centres and Special Schools. In addition, the study found that there is an effective collaboration between parents and Assessment Centres which is healthier for the effectiveness of the Assessment process. It is also found out that negative attitude of the public towards individuals with disability is a factor affecting the effectiveness of the Assessment Centres.

Conclusions

Based on the findings of this study, it can be concluded that the Assessment Centres in Ghana are made up of staff that have worked with the centres for a very long time. This is however not too good for the effectiveness of the centres since they may lack certain new methods or techniques of assessment. It is also concluded that, the profession of assessment of children with SEN has not much appreciated by women. In other words, the percentage of women into the assessment of children with SEN is non-significant.

It is also concluded that, parents of children with Special Educational Needs (SEN) have been highly involved in the assessment process. However, in terms of material support, remedial programmes for learning disabled, follow up activities in schools and homes, less is seen from parents from rural areas due probably to poverty and the high level of illiteracy. In other words, children with Special Educational Needs from rural areas are more likely to face several

challenges as against those of the urban and pre-urban in getting placement to Assessment Centres.

Beside the challenge of lack of equipment and materials, the lack of effective collaboration between Assessment Centres and Special Schools is making Assessment Centres in Ghana ineffective. The Central Government has also not been very supportive of the Education of children with SEN. Also, it is concluded that if all the necessary materials and logistics are made available to the Assessment Centres, much could be expected from the Assessment Team.

Furthermore, the period for which the performance of children with SEN is being reviewed is too long. This would not help obtain a detailed and an effective need of the child since after a long period, keeping records of the child's development becomes difficult.

Finally, it is concluded that, children with SEN in rural areas are less likely to be identified for placement in Special Schools as compared to their colleagues in the urban and pre-urban areas. Though the assessment process employed by the Assessment Centres takes into consideration all aspects of the child's personality and life, this is always not done in practice since the materials to work with are either unavailable or scarce.

Recommendations

Based on the findings obtained from the study, the following recommendations are made for stake holders in the education of children with Special Educational Needs as well as researchers;

- a. Ministry of Education should make these centres more effective by providing funds for their activities, materials and logistics as well as train more Audiologists in the medical institutions such as University of Ghana Medical School. In addition, the government should train more personnel for diagnostic testing.
- b. The Ghana Education Service needs to constantly encourage parents to continuously check on their wards after they have been given placement in special educational institutions. This would help make the monitoring system very effective. Furthermore, the Assessment Centres should reduce the period of which the centres perform reviews on the performance of the children. The reviews should be done constantly such as annually to help keep an effective record on the child. This would help keep record of the child needs at every time to help in the assessment process.
- c. Metropolitan, Municipal and Distant Assembly should to develop and implement programs to make the profession more acceptable to women should be instituted. This would help get a number of women into the Assessment profession.
- d. The National Committee on Assessment for Special Education should take a critical look at its performance and review the factors affecting its effectiveness.

Suggestions for Further Research

The following suggestions are made for further research:

- a. A research should be conducted in other assessment centres on how to make the collaboration between Assessment Centres and Special Educational Schools effective.
- b. The researcher recommends that there should be further investigation to explore attitudes and behavioural expectations of regular teachers and students of different ethnic cultures towards persons with disabilities. Sub cross-cultural research would have interesting theoretical implications as well as practical implications for policy decisions and for training and placement.
- c. Further research into the factors affecting the efficacy of Special Schools is needed to give a clearer view about what pertains at other Assessment Centres as well.

REFERENCES

- Ahlgrim-Delzell, F., & Spooner, F. (2005). *Teachers' perceptions of alternate assessments*. (Electronic version). Retrieved December 10, 2009 from <http://www.ebscohost.com/ehost/pdf>.
- Akyeampong, K. A., Browder, B., Karvonen, M., & Wakeman, T. (2007). Links for Academic Learning: A conceptual model for investigating alignment of alternate assessment systems based on alternate achievement standards. *Educational Measurement: Issues and Practices*, 23(7), 44-54.
- Anderson, A. (1991). The implication of teacher expectation: A Review of Research. *Capher Journal*, 18(6), 21-27.
- Anon, K. (2004). *The development of education for children with special educational needs*. Retrieved November 28, 2009 from www.socsci.ulst.ac.uk/education/scte/sen/articles.
- Anthony-Krueger, C., & Sokpe, B. Y. (2006). *A guide to writing successful long essay and thesis*. Cape Coast: YACI Press.
- Armstrong, T. (1994). *Multiple intelligences in the classroom*. Virginia: Association for Supervision and Curriculum Development.
- Armstrong, F., Armstrong, D., & Barton, L. (2000). *Inclusive education: Policy contexts and comparative perspectives*. London: David Fulton Publishers.
- Ary, D., Jacobs, L. C., & Razavieh, A. (2002). *Introduction to research in education*. (6th ed.). Australia: Wadsworth Thompson Learning.
- Avoke, M. (1997). *Introduction to special education for Universities and Colleges*. Accra. City Publishers.

- Avoke, M. (2009). Some historical perspective in the development of special education in Ghana. *Journal of Special Needs Education*, 16(1), 29-45.
- Avoke, M., Hayford, S., Ihenacho, I., & Ocloo, M. (1998). *Issues in special education*. Accra: City Publishers.
- Babbie, E. (2005). *The basic of social research*. (3rd ed.). Australia: Wardsworth Thompson.
- Bailey, D. B., Beskow, L. M., Davis, A. M., & Skinner, D. (2006). Changing perspectives on the benefits of newborn screening. *Mental Retardation and Developmental Disabilities Research Reviews*, 12(4), 270-279.
- Bamburg, J. D. (1994). *Raising expectations to improve student learning*. Oak Brook, Illinois; North Central Regional Laboratory. ED 378, 290.
- Barnados, N. (2006) '*Fit for purpose*' learning & assessment tool: Framework for the assessment of children in need and their families (Electronic version). Retrieved April 3, 2010 from http://www.redcarcleveland.gov.uk/.../guidance_adult_services_safeguarding_children_substance_misusig_parents.pdf.
- Bell, J. (1999). *Doing your research project: A guide for first-time researchers in education and social science*. (3rd ed.). New York: Two Penn Plaza.
- Berdine, W. H., & Meyer, S. A. (1987). *Assessment in special education*. Boston: Allyn and Bacon: Little Brown & Co. Berger. Retrieved April 3, 2010 from <http://www.education.ucc.edu.gh/edufoundations/reading>.
- Best, J. W., & Khan, J. V. (1998). *Research in education*. (7th ed.). Boston: Allyn and Bacon.

- Bieri, P. (2007). *Keck School collaborates in opening Memory Assessment Centre in Coachella Valley*. Retrieved April 3, 2010 from <http://www.usc.edu/hsc/info/pr/1volpdf/pdf07/1333.pdf>.
- Bonnell, J. (2007). *Different types of educational assessment tests*. (Electronic version). Retrieved March 14, 2010 from http://www.sarahbonnellonline.co.uk/page_viewer.asp?page.
- Boom, B. (2008). *Toward a theory of testing: Which includes measurement-evaluation-assessment*. Centre for the study of evaluation of instructional programs occasional report no. nine.
- Booth, T., & Ainscow, M. (2002). *Index for inclusion: Developing learning and participation in schools*. Philadelphia Open University Press.
- Bruce, V., Green, P.R., & Georgeson, M.A. (2003). *Visual perception: Physiology, psychology and ecology*. (4th ed.). Hove: Psychology Press. (Electronic version). Retrieved March 14, 2010 from http://www.le.ac.uk/pc/ss373/syllabus_2011_2016.htm.
- Carroll, J. B. (1993). *Human cognitive abilities*. London: Cambridge University Press.
- Christensen, A. C., Gerber, M. M., & Everhart, B. R. (1987). Toward a sociological perspective on learning disabilities, *Educational Theory* 36(4), 317–31.
- Cleaver, H. (2000). *When parents' issues influence their ability to respond to children's needs*. (Electronic version). Retrieved January 26, 2010 from <http://www.teachernet.gov.uk/doc/assessing%20children's%20needs.pdf>.
- Cohen, L., Manion, L., & Morrison, K. (2004). *Research methods in education*. (5th ed.). London: Routledge/Falmer.

- Common Assessment Framework for Children and Young People, (2005). (Electronic version). Retrieved February 12, 2010 from <http://www.skillsforjustice.com/websitefiles/CAFGuide.doc>.
- Dunst, C. J., Hamby, D., Trivette, C. M., Raab, M., & Bruder, M. B. (2000). Everyday family and community life and children's naturally occurring learning opportunities. *Journal of Early Intervention, 23*(3), 151-164.
- Eamonn, G. (2009). *Including pupils with special educational needs in schools in Ireland*. (Electronic version). Retrieved April 3, 2010 from <http://www.oecd.org/publishing/corrigenda>.
- Ekuri, E. E. A. (1997). *Planning and conducting research*. Lagos: Gbadero Ventures.
- Eysenck, M. W., & Keane, M. T. (2005). *Cognitive psychology: A student's handbook*. (5th ed.). Hove: Erlbaum.
- Fielding, J. & Gilbert, G. N. (2000). *Understanding social statistics*. London: SAGE Publications Ltd.
- Fraenkel, J. R., & Wallen, N. E. (2000). *How to design and evaluate research in education* (4th ed.). McGraw-Hill Companies, Inc.
- Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Gardner, H. (1999). *MI at the college level*. Talk delivered at Lesley College, Cambridge: MA.
- Gay, L. R. (1992). *Educational research: Competencies for analysis and application* (4th ed.). New York: Merrill/Macmillan.

- Gearheart, B. R. & Weishahn, M. W. (1988). *The handicapped children in the regular classroom*. London: CV Morsby Company.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Gindis, B. (1999). Reshaping the practice of special education for the 21st century. *Remedial and Special Education*, 20(6), 32-64.
- Guidelines and Ethical considerations for assessment centre operations, (1989). (Electronic version). Retrieved February 12, 2010 from <http://www.assessmentcenters.org/pdf/00guidelines.pdf>.
- Gyimah, E. K. (2007). *Assessment in education and procedures for children with special educational needs*. University of Cape Coast: Unpublished Masters Thesis.
- Hayford, S. K. (2000). *An evaluation of vocational programme of special schools for children with mental retardation in Ghana*. University of Cape Coast: Unpublished Masters Thesis.
- Heward, W. L. (1996). *Exceptional children: An introduction to special education* (4th ed.). Englewood Cliff: Prentice Hall Inc.
- Kelly, L. J., & Vergason, G. A. (1985). *Dictionary of special education and rehabilitation*. Denver: Love and Publishing Company.
- Kenworthy, J. & Whittaker, J. (2000). Anything to declare? The struggle for inclusive education and children's rights. *Disability & Society*, 15(2), 219-231.
- Kirk, S. A., Gallagher, J. J., & Anastasiow, N. J. (1993). *Educating exceptional children*. (7th ed.). Boston: Houghton Mifflin Co.

- Kleinert, L. H., Browder, M. D., & Towles-Reeves, A. E. (2009). Models of cognition for students with significant cognitive disabilities: Implications for assessment. *Review of Educational Research, 79*(1), 301-326.
- Kleinert, H., & Kleinert, J. (2009). An analysis of the learning characteristics of students taking alternate assessments based on alternate achievement standards. *Journal of Special Education, 73*(4), 49-53.
- Koray, B. I. (1998). *Policy trends related to special needs education in Ghana reviewed from an international perspective*. In, Proceedings of the first joint national delegates conference on persons with disabilities. University College of Education, Ghana.
- Kwaku, M. (1998). *Review of the state of special education programme/services in Ghana*. In Proceedings of the first joint national delegates conference on persons with disabilities. University College of Education, Ghana.
- La Rue, J. (1989). *Assessing the assessment centre*. *Wilson Library Bulletin*. (Electronic version). Retrieved February 5, 2010 from http://www.jlarue.com/assessment_centre.html.
- Lebedinsky, V. V. (1985). *Narushchenia v psikhicheskome razvitiu u detei (Disorders in Children's Psychological Development)*. Moscow: MGU Press.
- Leedy, D. L., & Ormrod, J. E. (2005). *Practical research: Planning and designing*. RoutledgeFalmer (5th ed.). Upper Saddle River, NJ: Merrill/Practice Hall.
- Lewis, R. B., & Doorlag, D. (1995). *Teaching special students in the mainstream*. NJ: Prentice Hall Inc.

- Llewellyn, A., & Hogan, K. (2000). The abuse of models of disability. *Disability and Society, 15*(1), 157-166.
- Mather, N. (1999). *Interpretation of the WJ-R cognitive and achievement batteries*. Retrieved March 14, 2010 from <http://www.inkinghub.elsevier.com/retrieve/pii/S1041608002000778>.
- McLoughlin, J. A., & Lewis, R. B. (1994). *Assessing special students*. Columbus: Merrill Publishing Co.
- McWilliam, R. A. (2005). Assessing the resource needs of families in the context of early intervention. In M. J. Guralnick (Ed.), *The developmental systems approach to early intervention* (pp. 215-234). Baltimore: Brookes.
- Morgan, R. E. (1996). *Drawing on resource-advantage theory*. (Electronic version). Retrieved February 12, 2010 from <http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=/.../pdf>.
- Nwana, O. C. (1992). *Introduction to educational research*. Nigeria: Irepo Printing Press.
- Nwandinigwe, I. P. (2005). *Fundamentals of research methods and statistics*. Lagos: Sibon Books Limited.
- Obeng, C. S. (2007). Dealing with epilepsy in an Akan Family: In Toyin Falola (Ed.), *HIV/AIDS, Illness in African Well-Being*, (pp. 57-71). Austin: University of Texas Press.
- Ocloo, M. A. (1994). *Rudiments of psychology of disabilities*. Winneba: UCEW. Unpublished Thesis.
- Overton, T. (2000). *Assessment in special education: An applied approach*. (3rd ed.). New Jersey, Merrill: Prentice Hall.

- Sarantakos, S. (1988). *Social research* (2nd ed.). New York: Palgrave Publishers Ltd.
- Sattler, J. (1992). *Assessment of children*, (3rd ed.). San Diego, CA: Academic Press.
- Sattler, J. M. (1988). *Assessment of children*. San Diego, CA: Academic Press.
- Save the children fund (1995). *Disability and integration in Morocco*. (Electronic version). Retrieved September 22, 2009 from <http://www.savethechildren.org>.
- Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2000). *Research methods in psychology*. (5th ed.). New York: McGraw Hill Companies Inc.
- Shea, T. M., & Bauer, A. N. (1999). *Learners with disabilities: A social system perspective of special education*. Dubuque: Brown & Benchmark Publishers.
- Sternberg, N. (1996). *Cognitive psychology*. (3rd ed.). New York: Thomson Wadsworth.
- Surran, B., & Rizzo, J. V. (1979). *Special children: An integrative approach*. Illinois Scott: Foreman and Company.
- Teacher Training Agency (TTA) (1999). *National special educational needs specialist standards*. London: Teacher Training Agency.
- The Warnock Report, (1978). *Special educational needs*. Report of the Committee of Enquiry into the education of handicapped children and young people. London: HMSO.
- Towles-Reeves, E., Kearns, J. Kleinert, H., & Kleinert, J. (2009). An analysis of the learning characteristics of students taking alternate assessments based on alternate achievement standards. *The Journal of Special Education* 42(4), 241-254.
- Tuckman, B. W. (1994). *Conducting educational research* (4th ed.). New York: Harcourt Brace & Company.

- UNESCO, (1986). Understanding and responding to children's needs in inclusive classrooms. Paris: UNESCO.
- UNESCO, (1994). The Salamanca Statement and Framework for Action. World Conference on Special Education Report. Paris: UNESCO.
- Vygotskaya, G. L., & Lifanova, T. M. (1999). Part 1: Life and works of L. S. Vygotsky. *Journal of Russian and East European Psychology*, 37(2), 23-81.
- Vygotsky, L. S. (1994). *The socialist alteration of man*. (Electronic version). Retrieved January 28, 2010 from <http://www.learningtheories.com/vygotskys-social-learning-theory.ht>.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1995). *Problemy defectolog*. (Electronic version). Retrieved January 28, 2010 from [http://www.ehow.com Education > K-12 > K-12 For Educators](http://www.ehow.com/Education/K-12/K-12ForEducators).
- Warnock Report (1978). *Special education needs*. London: HMSO.
- Warnock, M. (2006). *Special educational needs: A new look*. *British Journal of Developmental Disabilities*. (Electronic version). Retrieved September 22, 2009 from <http://www.bjdd.org>.
- Watson, K. C., Kiekhefer, G. M., & Olshansky, E. (2006). Striving for therapeutic relationships: Parent-provider communication in the developmental treatment setting. *Qualitative Health Research*, 16(5), 647-663.
- Wertheimer, M. (1924). *Gestalt theory*. Retrieved February 11, 2008 from <http://www.ehow.com>.

Youth Justice Board (2004). *Assessment, planning, interventions and supervision: Key elements of effective practice*. Prentice, London: Youth Justice Board.

APPENDIX A
UNIVERSITY OF CAPE COAST
SURVEY INSTRUMENTS
QUESTIONNAIRE FOR HEADS OF THE ASSESSMENT CENTRES

Instruction

The researcher is a student of the University of Cape Coast, Department of Educational Foundations who is conducting a study on the factors affecting the efficacy of assessment centres for children with special educational needs. The objectives of the study include; to examine the procedures employed in Assessment Centres in assessing children with special educational needs, the extent to which parents are involved in the assessment process, the challenges confronting parents in the Assessment of their children with SEN.

Please do your best to complete this questionnaire in an honest and open manner and with as much details and expectation as possible. You are however assured that information provided by you will be treated with strict confidentiality

Instruction: Please supply answers and tick (✓) where appropriate

Section A

Demographic Data

1. Sex: [] Male [] Female
2. Age: [] Under 30yrs [] 30-40yrs [] 41-50yrs [] Over 50yrs
3. Highest Academic Qualification
Ph D []
Masters Degree []

Bachelor's Degree []

Diploma []

SSSCE/'O'/'A' level []

Any other (specify).....

4. Total years of working in Assessment Centre.

Less than 6 years [] 6-12 years [] Over 13 years []

5. Profession

Special education teacher [] Social worker []

Psychologist [] Specify if others.....

8. Present Rank in the Ghana Education Service (GES), (**teachers only**)

Superintendent II [] Superintendent I []

Senior Superintendent II [] Senior Superintendent I []

Principal Superintendent [] Any other (specify).....

Section B

Materials and Logistics used in Assessment Centres

This section investigates into the availability of materials and logistics for assessment team members. Below is a five point-scale measuring your views on the availability of certain materials and logistics.

Take note: The following indicates what each of the five points stands for

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree,

U = Undecided (no opinion)

In your opinion, to what extent do you agree on the availability of the following materials and logistics in your assessment centre?

ITEM	SCALE				
	SA	A	U	D	SD
1. The centre has enough hearing aids					
2. There are enough audiometers					
3. There are enough otoscopes					
4. There are enough materials at the centre					
5. The centre has enough tape recorders					
6. The centre has enough materials for tympanography					
7. The centre has enough materials for pure tone test					

Section C

Assessment Procedures

This section investigates into the form of assessment procedures which can help improve the assessment of children with special educational needs.

In your opinion, to what extent do you agree on each of the following as an assessment procedure employed in your assessment centre?

ITEM	SCALE				
	SA	A	U	D	SD
1. Screening (many children are screened for at risk conditions.)					
2. Pre-referral (Teacher attempts remediation through classroom and instructional adaptations)					
3. Referral (assistance sought from other professionals but with parental consent.)					
4. Evaluation (different professionals determine child special needs.)					
5. Eligibility (design of individualised plan (IEP) and educational placement.					
6. Monitoring (child's progress is daily recorded for information on achievements.)					
7. Evaluation (The entire programme is reviewed to check its efficacy in meeting child's needs.)					

Section D

Challenges Confronting the Assessment of Children with SEN

This section measures the challenges that confront assessment centres, besides the availability of logistics which in turn affect their effectiveness. In your opinion, to what extent do you agree on each of the following as a challenge that tends to confront the assessment centres in Ghana in the discharge of their duties?

ITEM	SCALE				
	SA	A	U	D	SD
1. Lack of effective collaboration between the centres and special schools					
2. Lack of effective collaboration between central government and local government					
3. Lack of effective collaboration between the centres and parents					
4. Lack of effective collaboration between assessment team members					
5. Negative attitudes of the public towards individuals with disabilities					
6. Lack of incentives (motivation)					
7. Personnel training					
8. Development of support system					

Specify if others.....

Section E

Sources of funding

1. In the process of carrying out assessment, do you receive any funding from any source? Yes [] No []
2. Which of the following are the sources?
 - a. Non-governmental organisation b. Central government
 - c. Ministry of Education d. Philanthropists e. MMDA

Section F

Parental Involvement

1. Are parents involved whenever there is assessment? Yes [] No []
2. If yes, what specific role(s) do they play in the assessment process?
 - a. They supply information about their wards
 - b. They give their consent to assessment team
 - c. They supply some materials needed for their wards

Section G

Support Systems

1. Do you have anybody or organisation assisting you with the assessment?
Yes [] No []
2. Which of the following are applicable?
 - a. Central government b. NGOs c. Philanthropists

Suggestions to improve the effectiveness of Assessment Centres

1. In your view, how can assessment centres be made more effective

a.....

b.....

Comment:

Kindly indicate below any further comment which you would like to draw the attention of the researcher to as far as the study problem is concerned

a.....

b.....

THANKS FOR YOUR TIME AND PARTICIPATION

APPENDIX B
UNIVERSITY OF CAPE COAST
QUESTIONNAIRE FOR ASSESSMENT TEAM

Introduction

The researcher is a student of the University of Cape Coast, Department of Educational Foundations who is conducting a study on the factors affecting the efficacy of assessment centres for children with special educational needs. The objectives of the study include; to examine the procedures employed in Assessment Centres in assessing children with special educational needs, the extent to which parents are involved in the assessment process, the challenges confronting parents in the Assessment of their children with SEN.

Please do your best to complete this questionnaire in an honest and open manner and with as much details and expectation as possible. You are however assured that information provided by you will be treated with strict confidentiality

Instruction: Please supply answers and tick (✓) where appropriate

Section A

Demographic Data

1. Sex: Male Female
2. Age: Under 30yrs 30-40yrs 41-50yrs Over 50yrs
3. Highest Academic Qualification
- Ph D
- Masters Degree

Bachelor's Degree []

Diploma []

SSSCE/'O'/'A' level []

Any other (specify).....

4. Total years of working in Assessment Centre.

Less than 6 years [] 6-12 years [] Over 13 years []

5. Profession

Special education teacher [] Social worker []

Psychologist [] Specify if others.....

8. Present Rank in the Ghana Education Service (GES)

Superintendent II [] Superintendent I []

Senior Superintendent II [] Senior Superintendent I []

Principal Superintendent [] Any other (specify).....

Section B

Materials and Logistics used in Assessment Centres

This section investigates into the availability of materials and logistics for assessment team members. Below is a five point-scale measuring your views on the availability of certain materials and logistics.

Take note: The following indicates what each of the five points stands for

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree,

U = Undecided (no opinion)

In your opinion, to what extent do you agree on the availability of the following materials and logistics in your assessment centre?

ITEM	SCALE				
	SA	A	U	D	SD
8. The centre has enough hearing aids					
9. There are enough audiometers					
10. There are enough otoscopes					
11. There are enough materials at the centre					
12. The centre has enough tape recorders					
13. The centre has enough materials for tympanography					
14. The centre has enough materials for pure tone test					

Section C

Assessment Procedures

This section investigates into the form of assessment procedures which can help improve the assessment of children with special educational needs.

In your opinion, to what extent do you agree on each of the following as an assessment procedure employed in your assessment centre?

ITEM	SCALE				
	SA	A	U	D	SD
8. Screening (many children are screened for at risk conditions.)					
9. Pre-referral (Teacher attempts remediation through classroom and instructional adaptations)					
10. Referral (assistance sought from other professionals but with parental consent.)					
11. Evaluation (different professionals determine child special needs.)					
12. Eligibility (design of individualised plan (IEP) and educational placement.					
13. Monitoring (child's progress is daily recorded for information on achievements.)					
14. Evaluation (The entire programme is reviewed to check its efficacy in meeting child's needs.)					

Section D

Challenges Confronting the Assessment of Children with SEN

This section measures the challenges that confront assessment centres, besides the availability of logistics which in turn affect their effectiveness.

In your opinion, to what extent do you agree on each of the following as a challenge that tends to confront the assessment centres in Ghana in the discharge of their duties?

ITEM	SCALE				
	SA	A	U	D	SD
9. Lack of effective collaboration between the centres and special schools					
10. Lack of effective collaboration between central government and local government					
11. Lack of effective collaboration between the centres and parents					
12. Lack of effective collaboration between assessment team members					
13. Negative attitudes of the public towards individuals with disabilities					
14. Lack of incentives (motivation)					
15. Personnel training					
16. Development of support system					

Specify if others.....

Section E

Sources of funding

1. In the process of carrying out assessment, do you receive any funding from any source? Yes [] No []
2. Which of the following are the sources?
 - a. Non-governmental organisation b. Central government
 - c. Ministry of Education d. Philanthropists e. MMDA

Section F

Parental Involvement

1. Are parents involved whenever there is assessment? Yes [] No []
2. If yes, what specific role(s) do they play in the assessment process?
 - a. They supply information about their wards
 - b. They give their consent to assessment team
 - c. They supply some materials needed for their wards

Section G

Support Systems

1. Do you have anybody or organisation assisting you with the assessment?
Yes [] No []
2. Which of the following are applicable?
 - a. Central government b. NGOs c. Philanthropists

Suggestions to improve the effectiveness of Assessment Centres

1. In your view, how can assessment centres be made more effective

a.....

b.....

Comment:

Kindly indicate below any further comment which you would like to draw the attention of the researcher to as far as the study problem is concerned

a.....

b.....

THANKS FOR YOUR TIME AND PARTICIPATION

APPENDIX C

UNIVERSITY OF CAPE COAST

INTERVIEW GUIDE FOR PARENTS

1. Are you involved whenever there is assessment of your ward?

Yes [] No []

2. What specific roles do you play whenever there is assessment of your ward?

a. I supply information about my ward

b. I give my consent to the assessment team

c. I supply some materials for the assessment of my ward

3. What materials/equipment are at the assessment centre?

a. Braille sheets

b. Thermoform machine

c. Cassettes

d. Tape recorders

e. Audiometers

f. Furniture

4. What challenges do you encounter as a parent?

5. Do you have anybody or organisation assisting you with the assessment of your ward? Yes [] No []

6. Who are they?

a. Churches b. Philanthropists c. MMDAs d. Central government

APPENDIX D

UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA
FACULTY OF EDUCATION
DEPARTMENT OF EDUCATIONAL FOUNDATIONS

Telephone: 32440/4 & 32480/3 Direct: 042-36037
TELEX: 2552, UCC, GH
Telegrams & Cables: University, Cape Coast



University Post Office
Cape Coast, Ghana

Our Ref.:

Your Ref:

March 17, 2010

THESIS WORK

LETTER OF INTRODUCTION

We introduce to you Mr. /Mrs. / Miss. -----a student
from the University of Cape Coast, Department of Educational Foundations. He/She is pursuing a
Master of Philosophy (M.Phil) degree in -----
As part of his/her requirements, he/she is expected to work on a thesis entitled:

He/She has opted to make a study at your institution/establishment for the project. We would be most grateful if you could provide the opportunity for the study. Any information provided will be treated as strictly confidential.

Thank you.

(Dr. Emmanuel Kofi Gyimah)
HEAD

DEPARTMENT OF EDUCATIONAL FOUNDATIONS
UNIVERSITY OF CAPE COAST

APPENDIX E

University of Cape Coast
Department of Educational Foundations
Cape Coast
April 1, 2010

The Head

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.....

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Dear Sir,

LETTER OF INFORMATION

This is to inform you that your assessment centre has been selected to take part in a survey study and the Regional Director of Education has been duly notified. The study seeks to explore the factors affecting efficacy of assessment centres in assessing children with special needs in Winneba, Hohoe and Accra centres.

Your assistance is being sought to respond to a survey instrument which will help in determining the factors affecting the efficacy of your assessment centre.

You are, therefore, assured that your participation and for that matter your responses as well as your name will remain anonymous and be held in strictest confidence. Please, your participation is highly solicited.

Please, find attached a copy of a letter of introduction.

Thank you.

Yours faithfully,

Ametewee Setumte Dodzi

(Student)

APPENDIX F

University of Cape Coast
Department of Educational Foundations
Cape Coast
April 1, 2010

The Regional Director
Ghana Education Service
Accra

Dear Sir,

LETTER OF PERMISSION

I write to seek your permission to conduct a study in the Assessment Centre for children with special educational needs under your jurisdiction.

My name is Ametewee Setumte Dodzi. I am a student of the Department of Educational Foundations, University of Cape Coast, embarking on a study among the assessment centres in Ghana. My study seeks to explore the factors affecting efficacy of assessment centres in assessing children with special needs in Winneba, Hohoe and Accra centres.

The purpose of this study is to examine the extent to which assessment centres in Ghana meet their set objectives. Indeed, very little is known or heard about the procedures employed in assessment centres in assessing special educational needs. As several factors affect the efficacy of the assessment centres in assessing children with SEN, it is imperative that this study is conducted to investigate the efficacy of the assessment centres.

If you require any clarification, please call me on the cell number 024 472 17 26. I have attached a copy of an introductory letter from the Department of Educational Foundations, UCC, for your consideration.

Your cooperation is greatly appreciated.

Yours faithfully,

Ametewee Setumte Dodzi
(Student)

APPENDIX G

Cross Tabulation of Profession and Name of Assessment Centre

			Name of assessment centre			Total
			HOHOE	WINNEBA	ACCRA	
Profession	Special education teacher	Count	9	10	11	30
		Expected Count	8.3	7.5	14.2	30.0
		% within of Name assessment centre	45.0%	55.6%	32.4%	41.7%
Social worker		Count	2	2	1	5
		Expected Count	1.4	1.2	2.4	5.0
		% within of Name assessment centre	10.0%	11.1%	2.9%	6.9%
Psychologist		Count	8	3	6	17
		Expected Count	4.7	4.2	8.0	17.0
		% within of Name assessment centre	40.0%	16.7%	17.6%	23.6%
Others		Count	1	0	15	16
		Expected Count	4.4	4.0	7.6	16.0

	% within Name assessment centre	5.0%	.0%	44.1%	22.2%
Audiologist	Count	0	3	1	4
	Expected Count	1.1	1.0	1.9	4.0
	% within Name assessment centre	.0%	16.7%	2.9%	5.6%
Total	Count	20	18	34	72
	Expected Count	20.0	18.0	34.0	72.0
	% within Name assessment centre	100.0%	100.0%	100.0%	100.0%