ANALYSIS OF THE FUNCTIONS AND THE CHALLENGES FACED BY EDUCATIONAL ASSESSMENT RESOURCE CENTRES IN FIVE SELECTED COUNTIES IN KENYA

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E55/CE/25685/2014

A RESEARCH THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF EDUCATION (SPECIAL NEEDS EDUCATION) IN THE SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

MARCH, 2020
DECLARATION

I declare that this thesis is my original work and has not been presented in any other university/institution for consideration. This research thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including internet, these are specifically accredited and references cited in accordance in line with anti-plagiarism regulations.

Signature: ........................................ Date: ........................................

Ayabei Jelagat Emmy
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We confirm that the work reported in this thesis was carried out by the candidate under our supervision as University Supervisors.

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DEDICATION

To my loving family for perseverance and confidence in me.
ACKNOWLEDGMENT

First, I acknowledge the grace of almighty God for this far he has brought me. I am indebted to my supervisors Prof. Karugu and Dr. Nzoka for their expertise guidance, invaluable advice and intellectual input towards this research. Also appreciated are Dr. Runo and Dr. Muthee for their encouragement and guidance in my study may almighty God bless you. I also acknowledge the library staff for the support and services they offered me during my study. Lots of thanks go to my late father for financial moral support and encouragement through my study.
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### ABBREVIATIONS AND ACRONYMS

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<th>Definition</th>
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<tr>
<td>CIPP</td>
<td>Content, Input, Process product</td>
</tr>
<tr>
<td>DB</td>
<td>Decibels</td>
</tr>
<tr>
<td>EARC</td>
<td>Educational Assessment Resource Centers</td>
</tr>
<tr>
<td>FAPE</td>
<td>Free and Appropriate Public Education</td>
</tr>
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<td>FPE</td>
<td>Free Primary education</td>
</tr>
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<td>IDEA</td>
<td>Individuals with Disability Education Act.</td>
</tr>
<tr>
<td>IEP</td>
<td>Individualized Education Plan</td>
</tr>
<tr>
<td>LRE</td>
<td>Least Restrictive Environment</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
</tr>
<tr>
<td>PL</td>
<td>Public law</td>
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<tr>
<td>PLAT</td>
<td>Peabody Individual Achievement Test</td>
</tr>
<tr>
<td>PWDs</td>
<td>Persons with Disabilities</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Science</td>
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<tr>
<td>UNCRD</td>
<td>United Nations Declaration on Human Rights</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WIAT</td>
<td>Wechsler Individual Achievement Test</td>
</tr>
<tr>
<td>WRAT</td>
<td>Wide Range Achievement Test</td>
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ABSTRACT

Educational Assessment Resource Centers (EARC) are set to cater for persons with disabilities. EARCs have vast functions and thus there are a lot challenges facing the centres. Such include lack of qualified personnel who can conduct an assessment of all categories of disabilities, lack of valid assessments due to poor tools, lack of clear assessment procedures, weak policies and legislation as well as lack of parental consents. The purpose of the study was to analyze the functions and the challenges faced by educational assessment resource centres in five selected Counties in Kenya. The objectives of the study were to assess the identification of disabilities in the centers, identify tools and equipment used in disability assessment, evaluate the available placements in selected counties, examine the involvement of EARCs in identification and placements, and find out the challenges faced by EARCs. The study was guided by CIPP evaluation model which assisted in determining the worth and the value of EARCs. The researcher employed a descriptive survey research design approach. The study location was in 5 EARCs in the following counties; Kakamega, Baringo, Trans Nzoia, Uasin Gishu, and Elgeyo Marakwet. Purposive sampling was used to select 5 EARCs in Kenya and 5 EARC coordinators. Convenient sampling was used in selecting 80 special needs education (SNE) teachers. The researcher gathered the information using questionnaires and observation schedules. The tools were administered on the pilot group and examination of the item relevance to variables and objectives were done by the researcher to determine the validity. Data was coded edited and organized through the statistical package for social science (SPSS) software and open-ended questions were analyzed using descriptive statistics by calculating in terms of frequencies and percentages. The finding showed that 60% of the EARCs often provided audio-visual aids to learners with special needs (M=2, SD=0.71). 40% of the EARCs rarely coordinated seminars that involved all the stakeholders in the field of special needs (M=2.8, SD=1.3). 80% of the sampled EARCs often coordinated evaluation and assessment in schools (M=2.2, SD=0.45). Forty percent of the EARCs often provided hearing aids to learners with hearing impairment and an equal number sometimes availed the aids to the learners (M=2.2, SD=0.84). 60% of the EARCs were sometimes involved in visiting schools to advise teachers on how to identify children with special needs and do an assessment (M=3.6, SD=0.55). The study established that EARCs had inadequate tools and equipment, there was low parental involvement in assessment, there were few special schools for placement of learners with special needs. Seminars were not conducted for the stakeholders and there were few EARCs. The following recommendations: training for more special needs teachers, ensure there is adequate multi-disciplinary team in the EARCs, seminars should be organized for the stakeholders. Government to build more special schools in addition to enabling all inclusive educational environment and to provide adequate tools and equipment to the EARCs and finally, parents/guardians should be involved in the assessment process.
CHAPTER ONE
BACKGROUND TO THE STUDY

1.1 Introduction
This chapter presents the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions, significance of the study, limitations, and de-limitations, the scope of the study, theoretical and conceptual framework and operationalization of the key terms.

1.2 Background to the Study
According to Ysseldyke (2006), assessment is a multi-faceted process of gathering information using appropriate tools and techniques so as to make an educated decision about placement and educational programme for a particular student. Gargulo (2010) terms assessment as a generic term that refers to the process of gathering information about learners’ strength and needs using appropriate tools and technique to make educational decisions.

Assessment is an essential component in the educational programming for all children. Results of a comprehensive assessment involving the multidisciplinary team, form a basis for making decisions concerning educational placement and development of Individualized Educational Programme (IEP) as required by the Education for All Handicapped Children Act of 1975. For the educational assessment to be comprehensive, it should employ combinations of various tools and techniques which are selected to be consistent with the aim of assessment (Angela, 2019).
Worldwide, Educational Assessment Resource Center (EARC) is a facility that is set at an existing special school, unit for persons with disabilities in a selected schools, health centers or hospitals where parents can take their children with disabilities. This center may be staffed by teachers, nurses, physiotherapist, occupational therapist, social workers and psychologist (Kristensen, Baine & Thorburn, 1987). Assessment should include a summary of developmental history, observation in a diverse setting of the child’s ecology as well as the administration of the appropriate test, which could be teacher made.

According to the National Joint Committee on Learning Disabilities (2010), a significant factor in comprehensive assessment is the interpretation and integration of information which is gathered from a variety of sources in order to make an educational decision. To perform the assessment process actively, teacher should have understanding of the growth and development of children who are handicapped, their educational needs, knowledge of potential impact of impairment on behavior, functioning as well as have a thorough understanding of instruments and procedures including the purpose available standardization data, strength and weakness in assessing educational needs of the children.

Countries such as the USA, Britain, and the Netherlands have advanced their educational system to incorporate improved assessment. Assessment is a long systematic and detailed process that is used to identify the needs of a learner and offer practical solutions to tackle these problems. An elaborate set of the procedure is done from identification of problems, till the placement is made in the least Restrictive Environment (LRE) with
quality service delivery, Individualized Educational Programme (IEP) procedures, process, non-discriminatory assessment, and parental involvement. Persons with disabilities (PWDs) are eligible for services from the state. Section 504 of Rehabilitation Act 1973 makes individuals with disabilities entitled to services if their conditions limits their activities in life.

In the USA, the public law 11–457 (1986) which was amended to PL 9-142 offers all pre-scholars with special needs, ages 3 to 5, a ticket to receive free and appropriate public education. The local school systems also receive additional funding based on 85% of the population of children between ages 3 and 21.

In Kenya, the Educational Assessment and Resource Centers (EARCs) were established in 1984 by the Danish government in conjunction with the government of Kenya, MoE (1984). The EARCs was established in new and existing special schools meant for children with impairments, between ages 0-16 years, for psychological and educational assessment. Kenya has been experiencing several roadblocks to the goal of achieving meaningful and valid assessment due to various factors such as lack of necessary assessment tools, lack of basic equipment and lack of EARCs, which were supposed to be in every sub-county by 2015. Today, almost all the new sub-counties do not have the resources in the EARCs.

Many international and national legal frameworks, policies and documents have made persons with disabilities (PWDs) to recognize their rights to education. Some of these international and national policies include the UN Convention on the Rights of Persons

1.3 Statement of the Problem

The Kenyan government put in place the processes of identifying and assessing learners through EARCs whose functions were to identify, assess and place learners with special needs appropriately, guiding and counseling parents and children with disabilities and conduct home visits. Other functions include organizing short courses for parents, integrate children into special schools, establish small homes for integrated children, refer children for medical examination, providing equipment, conducting seminars for teachers and administrators, health professionals and social workers and collecting data on children with impairment for special education planning (Bii & Taylor, 2013; Republic of Kenya, 2009).

With immense functions of the EARCs, having looked at the literature, the reasercher found some gaps such as lack of qualified personnel who could conduct an assessment of all categories of disabilities, lack of valid assessments due to poor tools, lack of clear
assessment procedures, weak policies and legislation as well as lack of parental consents. These show how the services offered at the EARCs remain compromised.

Apparently, due to the diverse challenges, the researcher in the current study analyses the functions and challenges faced by the EARCs in the five selected counties in Kenya namely Uasin Gishu, Elgeyo Marakwet, Baringo, Trans Nzoia and Kakamega.

1.4 Purpose of the Study
The purpose of this study was to analyze the functions and the challenges faced by EARCs in five selected counties in Kenya, namely; Uasin Gishu, Elgeyo Marakwet, Baringo, Trans Nzoia and Kakamega.

1.5 Research Objectives
The researcher was guided by the following objectives:

i. To establish how the identification of learners with special needs was done in the selected EARCs;

ii. To examine the tools and equipment used in assessing learners with special needs in the selected EARCs;

iii. To determine placement options available for learners with special needs in selected counties;

iv. To examine how often the given activities are conducted in the EARCs.

v. To find out the challenges faced by the selected EARCs in Kenya.
1.6 Research Questions

The study intended to answer the following:

i. How is the identification of learners with special needs done in the selected EARCs?

ii. Which tools and techniques are used in assessing learners with special needs in selected EARCs?

iii. Which are the available placement options for learners with special needs in the counties?

iv. How often does the selected EARCs engage in the given activities during the assessment of learners with special needs?

v. What are the challenges faced by EARCs in the selected counties of Kenya?

1.7 Significance of the Study

The finding of the study may benefit all the stakeholders in the education sector. The study results may create insight and understanding on effective management of EARCs in Kenya. This information may also enable education stakeholders to use recommended methods, correct tools and equipments for assessment, valid tests and use correct procedures in administration of tests which in turn may help them make good decisions for better development and management of EARCs. Data from the study may also be used by quality assurance officers to improve on quality standards of assessment of the children for placement in special programmes. Other beneficiaries in this study are the academic scholars in education who can use the findings to come up with new theories inorder to promote knowledge in assessment.
1.8 Limitations and Delimitations

1.8.1 Limitation of the Study

The sample size for the research was small since it only focused on the five EARCs in five selected Counties in Kenya. The study was limited to EARCs leaving out other important institutions that cater for the challenged children. It will be difficult to generalize the findings to other counties and countries.

1.8.2 Delimitation of the Study

The study was confined to EARCs in five selected counties only and this limits the generalization of the findings to centres in other counties and countries. The study limited itself to literature on EARCS this implies that the findings of the study may not apply to other related institutions.

1.9 Assumptions of the Study

The study assumed that the selected EARCs were a true reflection of other centres in Kenya. The study also assumed that the EARCs personnel were qualified and provided requested information reliably.

1.10 Theoretical Framework and Conceptual Framework

1.10.1 Theoretical Framework

This study was guided by CIPP evaluation model which was developed by Daniel Stufflebeam in 1960. Stufflebeam aimed at providing timely information in a systematic way for decision making which is a proactive application of evaluation. The model also served a retroactive role of providing information for accountability as well as assisting
the educators in decision making. The model used in studies done by Waithaka (2015) in exploring setbacks of developing an individualized educational programme for learners with physical and hearing impairment in Kiambu County who found out that effective development and use for IEP would enhance the education of learners with special needs. This model has four ideas namely:

**Content evaluation**- it provides information about the strength and weakness of a system and assists in planning for improvement.

**Input evaluation**- it provides information about the strength and weakness of alternative strategies which might be chosen and structured for the achievement of a given objective.

**Process evaluation**- it provides information about the strength and weakness of a chosen strategy under conditions of actual implementation to enhance strategy.

**Product evaluation**- It aims at relating outcome to objectives and access to the overall work of a procedure in terms of its effect. The above ideas (CIPP) may govern the Educational Assessment and Resource Centers today. This model suggests that EARC can be improved if only its strength and weakness are put forward to assist in planning to achieve its goals.

For EARC to succeed, a lot of effort should be put in the training of multi-disciplinary team and posted to the centers for assessment, provision of appropriate and adequate tools and clear legal procedures that can enhance effective assessment of learners with special needs.
Implementation – is the materialization of a usage of a model design, blueprint, or knowledge to perform ideologies and schemes postulated in the Special Needs Education (SNE) policy so as to craft an equal right to use the relevant and quality training and education in inclusive institutions.
1.10.2 Conceptual Framework

This is a scheme of variables that the researcher defined to achieve the set objectives (Oso & Onen, 2016).

**Independent variables**

- Identification methods
  - Observation
  - Screening
  - Assessment

- Tools of assessment
  - Tests
  - Medical records
  - Snellen Chart
  - Recollections

- Placement options
  - Special day schools
  - Special units/classes
  - Residential special schools
  - Resource Room

- Involvement of multi-disciplinary team
  - Parents
  - Nurse
  - Psychologist
  - Assessment officers

- Challenges
  - Funding
  - Personnel
  - Inadequate resources

**Dependent variables**

- Assessment of Learners with Special Needs

**Intervening variables**

- Government policies
- Competency of accessories
- Environmental

**Figure 1.1: Conceptual Framework**

**Source:** Researcher’s interpretation from the theoretical framework and literature review (Oso & Onen, 2016)
In the conceptual framework, depicted in Figure 1.1, the functions of EARCs that are likely to influence the appropriate assessment functions of EARCs are; identification methods, placement, and provision of tools and equipment, the involvement of EACRs and the personnel (accessories), and dependent variable being appropriate assessment administered. The framework postulates that the independent variables are likely to be modified by government policies competency of accessories and environment where the assessment is carried out.
1.11 Operational Definition of Key Terms

**Assessment** – It is the process of gathering information about the learners’ needs and strength for the purpose of planning or intervention.

**Diagnosis** – It is the process of determining the nature and severity of difficulty experienced by the learners in learning.

**Education Assessment** – It is the process of determining the worth or value of an organization and making decisions.

**Education Assessment and Resource Center** – It is a facility where learners who are suspected to have a disability or educational need are taken for assessment.

**Identification** – It is the process that is done in order to decide whether a child may have a disability hence calling for assessment to be done my multi-disciplinary term to determine the eligibility and identity the child’s educational needs.

**Multi-disciplinary Team** – These are professionals who should be involved in the assessments of learners with special needs.

**Resource Room** – It is a special education facility for learners with disabilities either in a regular education or special class learners taken for specialized instruction.
**Special Need Education Assessment** – It is an assessment which is carried out in the field of special needs education to find out factors which hinder learning and development of children with special needs.

**Special Needs** – These are conditions that can affect an individual’s normal learning and development.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

In this chapter, the researcher reviewed the related literature on the study objectives namely:

i. To establish how the identification of learners with special needs was done in the selected EARCs;

ii. To examine the tools and equipment used in assessing learners with special needs in the selected EARCs;

iii. To determine placement options available for learners with special needs in selected counties;

iv. Examine how often the given activities are conducted in the EARCs.

v. To find out the challenges faced by the selected EARCs in Kenya and research questions in chapter one and taking into account the publications of the accredited researchers.

2.2 EARCs and Their Functions in Kenya

In Kenya, EARCs are instituted in already functional special schools or in a specific unit handling disabled children in the regular schools. Pursuant to Muga (2003), the primary objective of EARCs in Kenya is to equalize the academic opportunities for all children with specialized needs and aid in the process of integrating special needs children into
the school system. To achieve this overall objective, EARCs are mandated to carry out the following functions:

**Identification of special needs children**

It is the responsibility of EARCs to conduct thorough assessment procedures to facilitate the educational prospects of special needs children. According to Juma and Malasi (2018), these procedures entail the screening and identification of special needs children, eligibility determination and diagnosis, developing individualized education programs (IEP), conducting placement, and driving instructional planning and cyclic evaluation.

**Guiding and counselling**

As a result of the mixed dynamics prevalent in Kenyan schools and communities, children with special needs as well as their immediate families may find themselves being the recipients of negative attention. If left unmitigated, the special needs children may end up being the ultimate subjects of ridicule and maltreatment, which directly impedes their propensity to attend school. To keep this from happening, EARCs are supposed to carry out sensitization campaigns aimed at demystifying the issue of disability in the community. Also EARCs are mandated to provide effective counselling to children with special needs as well as to their parents or other communal benefactors.

**Provisioning training services and creation of materials**

Availing training opportunities for SNE teachers is a cardinal responsibility of EARCs. One of the key objectives is to increase the number of special needs children identified and successfully placed by EARCs in Kenya. To achieve this, SNE teachers, as well as
EARC officers, are offered retraining services to enhance their propensity to disseminate the functions of EARC effectively and holistically (Muga, 2003). EARC are also required to design materials for the efficient education of children with special needs.

**Supporting schools**

EARC helps in improving the educational experience for children with special needs by working directly with other teachers and the management of regular schools. Since the implementation of the Free Primary Education (FPE) in Kenya, primary schools across the country realized an upsurge in the number of enrollments of new learners including children with special needs. To better serve the increased number of special needs learners, EARC assists regular teachers to disambiguate between learning difficulties and special needs cases (Adoyo & Odeny, 2015). This helps in alleviating the pressure experienced by regular teachers when teaching classes whereby special needs children are mixed with other non-challenged learners.

**2.3 Identification of Learners with Special Needs**

Identification is a systematic way of locating children with special needs to facilitate effective dispensation of special education programs (Lebeer, Biruta-Szekely, Demeter, Bohacs, Candeias, Sonnesyn, Partanen, & Dawson 2011). For the identification process to be effective, some salient and logical steps must be undertaken. For instance, in the USA, persons with disabilities are evaluated by the schools to determine their eligibility to special education and what services most appropriate for them. Also, classification is not the same across states because students with identical characteristics could be
diagnosed in one but not in another. In this case, reclassification is done when the children move to another school district or state (Kauffman, Hallahan, Pullen, & Badar, 2018). Furthermore, parents require their children to be assessed for placement in special education and related services based on the needs identified in an IEP (Kurth, McQueston, Ruppar, Toews, Johnston, & McCabe, 2019).

In South Africa, early identification enabled PWDs to receive effective treatment and rehabilitation. The government of South Africa established systems of early identification and identifies with disabilities (DSD., DWCPD & UNICEF, 2012). The services which were easily accessible were community and home-based. In Kenya, however, classification of persons with disabilities is the same hence there is rare reclassification as well as the registration of PWDs in the National Council.

In Kenya, however, the process of identification is often marred by a myriad of issues. First, the classification of persons with disabilities is the same hence there is rare reclassification as well as the registration of PWDs in the National Council (Friedrichs, 2019). Consequently, learners with special needs end up being integrated together indiscriminately with little to no regard of their individual and often disparate needs. Secondly, constrictive methods of identifying learners with special needs further convolute the efficacy of the already inadequate classification. Thirdly, the existing procedures of identification, when adhered to, are not the same throughout the country. Finally, identification often relies more on the prevailing societal or individual
perceptions thereby introducing the largely disparaging element of negative labelling directed towards PWDs in the country.

The universally recommendable methods of identifying learners with special needs include:

**Diagnostic approaches:** - This is a strategy for collecting and using data to make a decision about individuals’ curriculum-based evaluation, which is vital for determining instructional sequences and skills deficits needed to be taught (Yesseldyke, Bolt, 2007).

**Tests** – Teachers administer tests to identify learners with learning problems like being absent from school due to sickness. The tests or academic achievements are administered individually. Some of these tests are Peabody Individual Achievement Test (PLAT), Wide range achievement tests 4 (WRAT4) and Wechsler Individual Achievement Test 3 (WIAT – III) (Gipe & Richards, 2018).

**Observation** – This can be done by teachers, parents or siblings. Through observation, a social behavior may be reinforced to the performance of a skill. Both qualitative and quantitative approaches are used. Qualitative observation describes behavior (antecedents and consequences) good anecdotal records have a good description of behavior is defined briefly (Salvia, Ysseldyke, & Bolt, 2004).

**Developmental Screening** – it facilitates detection or presence of disability setting during immunization periods. This screening involves assessment of developmental milestones as well as examining vision and hearing.
2.4 Tools and Equipment used in the Assessment of Learners with Special Needs

Various tests are applicable to ascertain the efficiency of the assessment process. They include the Peabody Individual Achievement Test (PLAT), the Wide range achievement tests 4 (WRAT4) and the Wechsler Individual Achievement Test 3 (WIAT – III).

Tests – According to Garguilo (2012), tests are to be administered by trained individuals, must be reliable, valid, and appropriate for the purpose for which they are being used. Tests should be administered using students’ native language or preferred. Assessment tests are classified based on how they are constructed, administered, or recorded (Garguilo, 2012). Some tests are objective, meaning that examiner is given chance to give a correct mark for a correct response as tests for academic achievement are Wide Range Achievement Test 4 (WRA T4).

Wechsler individual achievements tests – third edition (WIAT – III, psychological co-operation is designed to assess reading, mathematics written expression, special (4-19 years), intelligence and specific ability fall has no right or wrong answer (Vaughan-Jensen, Adame, McLean & Gamez, 2011). Projective tests are used by psychologists and psychiatrists since they are complex to administer.

Checklist – a checklist is an assessment tool that helps a professional to record down all information about a learner during observation and interview (Ysseldyke & Bolt, 2007). In a non-systematic observation, the person is being observed in his or her environment and behaviors are being noted. In systematic observation, the observer sets out to observe and define behaviors and specify observation events that define behavior.
Recollections – Recalled observations and interpretations of behavior and events are used as an additional source of information. Information found through interviews and rating scales especially if the learner is familiar to the people who get the information (Ysseldyke & Bolt, 2007). Rating scales are used as a formal type of interview and in a standardized manner.

Medical records – This is vital as learners’ records retain demographic information while teachers’ comments about the student behavior review enables one to document when a problem occurred, its severity, and intervention measures done.

Judgments from professionals – Assessment and judgment made by others are vital for assessment. Professionals seek from others to complement their skills and background judgment from professionals, which is useful in some circumstances.

Snellen chart – According to Mason (2001), this chart is used to measure visual acuity. It measures within a distance of six meters from where the person is standing away from the chart.

In the United States, the methods of assessing special needs children often encompass the application of several tools. According to Benner and Grim (2013), the primary tool for assessing young children is standardized tests. The tests applied may involve one or more of the following subtests, norm-referenced tests, criterion referenced assessment, and curriculum based assessment. Norm-referenced tests are administered to gauge a child’s development in relation to others of a similar age while criterion referenced tests check
whether a child meets a pre-determined level of ability in various developmental units whereas curriculum-based tests check a child's ability in individualized curriculum subjects (Benner & Grim, 2013). Observation methods, which is a subset of authentic assessment, are also applied to gauge the behavior of a child.

In South Africa, the mode assessment is closely similar to that used in the United States. Tests form the basis of assessment. For the most part, regular South African schools have at least one teacher trained in the assessment of special needs children (Makoelle, 2016). Thus, the teacher administers tests aimed at assessing the academic capability of a student against that of other students in the same academic level.

In Kenya, assessment of children with special needs is restricted to the schools with EARC personnel and/or specialized teachers. More often than not, assessment is behavioral based whereby a teacher may designate a student as a special needs learner based on the child’s ability or obvious disability (Phasha, Mahlo, & Dei, 2017). In terms of testing, most regular schools in Kenya do not follow any specific standardized means of testing purposefully to assess children with special needs.

### 2.5 Equipment Used in the Assessment of Learners with Special Needs

According to Mason (2001) and WHO (1992), a torch is used for testing papillary reaction to light, Catford drum (white drum that has black dots of varied sizes), and E-chart are used for illiterate people. Others include Braille, Optical glasses, colored beads, rulers, tape measures, bold line exercise books, enlarged pictures, and diagrams or print.
Also, typoscopes and markers to eliminate patterns and complexity of visual input and reading machines (optical scanners with speech) are applicable.

Children with physical, neurological, and chronic health impairments have problems in performing one or more motor activities due to muscular-skeletal disorders. The primary motor activities hindered by these impairments include physical mobility and writing as well as comprehension speed. Therefore, such children require materials like skipping ropes, and sorting activities to stimulate their fine motor skills. Children with hearing impairments may be assessed using an audiometer – which measures decibels (DB)- and hearing aids. The human speech ranges from 40-60 decibels sounds pressure levels (Northern & Downs, 2002).

In Kenya, there exists an acute shortage of such equipment, more so in counties far-flung from the capital, Nairobi (Mutua & Sunal, 2012). Moreover, the number of teachers or educational faculty members trained to use the aforementioned tools and equipment is equally wanting. As a result, the overall regional efficiency of assessing special needs learners is severely hampered.

To alleviate this situation, it is necessary to conduct sensitization campaigns aimed at decentralizing the assessment and identification of special needs learners away from the capital towards other less endowed counties in Kenya (Mutua & Sunal, 2012).

2.6 Placement Options for Learners with Special Needs

Rothstein and Johnson (2014) identify placement as length of school day time taken by a student in a particular classroom or educational resource. Although placement
Methodologies may differ slightly from one country to the next, the basic tenets are largely the same. Consequently, when implementing placement options internationally and also regionally, the Individualized Education Program (IEP), first implemented in the USA, forms the basis of all placement decisions (Rothstein & Johnson, 2014).

Learners with special needs have diverse needs hence each of them going through appropriate assessment are placed accordingly after eligibility has been determined by a multidisciplinary team as per IDEA (2004) categorization of disabilities. IDEA requires that students with disabilities are educated with their non-disabled peers and have access to the core curriculum to the maximum (Agran, Alper & Wehmeyer, 2002). According to WHO, (2011), it is estimated that about a billion of the world’s population lie with disabilities and many of the children are out of school. The United Nations Commission on Human Rights (UNCHR) stipulates the right of all humans in inclusive education. Appropriate educational placement is a requirement in providing educational services to learners with special needs.

The placement options available to children with special needs, according to Rothstein and Johnson (2013) encapsulate the following:

**General education setting**

This placement methodology requires a special needs student to attend the same classes with their grade-level counterparts. According to, this form of placement may involve one of the following subsets:
**Regular class with indirect support** – whereby the special needs student is placed in a conventional class for the entire school day and is supervised/taught by a teacher who may or may not receive cyclic consultative assistance from SNE practitioners.

**Regular class with resource assistance** – In this case, a special needs learner attends a regular class for a significant portion of or throughout the school day, either individually or in a small group, and is taught by a special needs teacher.

**Regular class with withdrawal assistance** – the special needs learner attends the conventional class but receives tutorage outside of the conventional system of learning. Often, this tutorage is directed by a qualified special needs instructor.

In addition, Galgiulo (2012), identifies the following types of educational programs for learners with special needs:

**Residential special schools** – This is a boarding facility for children with a specific disability. It has a range of specialized materials, facilities, and trained personnel. Examples of these schools are Thika school for the blind, Kambui school for the deaf, Jacaranda Special School for the Mentally challenged, and Joy Town Special School for the physically challenged among others.

**Special day schools** – these are facilities where children with special needs spend part of the day in school and later join the community. It enables children to develop a self-concept and have a proper view of the society. Jones (2017) suggests that the teaching approaches are adapted and the curriculum is modified to include special areas like; orientation and mobility as well as independent living skills. The school arranges for
transport to school and back home. Examples of this include Jacaranda Special school (Nairobi) and the Aga Khan Special School for the mentally challenged, which started as a day school and later had to put up a residential facility.

**Resource room** – is found in an integrated setting (Jones, 2017). It is used by the specialized teacher and on occasions used by learners. The teacher and the learners may use in preparation of material and storage of equipment and books. The learners are joining with the mainstream classes at selected times as the teacher spends most of her time with a group of children in a unit room (Dash, 2006).

**Special Class** – according to Jones (2017), is a self-contained classroom. It is between special school and residential school placement as well as special day. It allows for integration during physical education and assembly learners mix (Kohl & Cook, 2013). Empirical investigations indicate that a chronic shortage of funds and personnel often emerge as the primary factors curtailing the establishment of specialized learning classes (Mcleskey, Tyler, & Flippin, 2004). In Kenya, such units are found in Aga Khan Unit for the deaf, City Primary for Intellectually Impaired and Racecourse Unit for the Deaf.

**Home-Based program** – The Zimcare trust in Zimbabwe formed four voluntary organizations in 1981. This led to the setting up of major programs with the aim of addressing the needs of families with children with disabilities in rural villages and towns (Mpofu & Shumba, 2012). Later on, Zimcare trust realized that the majority of those in villages and isolated community were separated from sources of support due to long distances demands of survival in substance economy. A Home-based program with
parents was vital in pre-school years hence important to involve parents in service systems for children with special needs. The teacher who offers the services is an itinerant teacher (Dash, 2006).

Although the above placement options lead to the formulation of suitable placement decisions, their overall practicality in the region (Kenya) is shrouded in ambiguity. The reason for this stems from the fact that implementation of the above choices is almost non-existent or at best, conducted haphazardly. Hence, further research is necessary to identify the factors hindering the full implementation of placement choices in various counties in Kenya.

2.7 Multi-disciplinary Team in Assessment

The multi-disciplinary team determines whether a student has a disability or not. The team conducts a multi-disciplinary evaluation by conducting an evaluation that defines the condition of the handicaps as stipulated in IDEA (public law 105 – 117). These may include a school psychologist, parents, regular teacher, special administration, social workers, speech and language pathologist, physiotherapist and other qualified professionals.

2.7.1 The Role of Psychologists

A school psychologist administers intelligence test and other assessments used in determining the student eligibility of services (Turnbull, Turnbull, Weheymer, & Shogren, 2012). He or she communicates, designs an intervention to learn social skills
and appropriate behavior. A psychologist focuses on psychotherapy and breaking mental and emotional suffering in patients using behavioral intervention practices.

However, because of the complexities associated with psychology, additional investigation into the effectiveness of evidence-based practice (EBP) in regard to the role of psychologists as disciplinary agents is necessary.

2.7.2 The Role of Parents
Salend (2006) asserts that parents have formed organizations called ‘silent voice’ to ensure community support (UNESCO, 2010). Parents and students with disabilities actively participate in their children schooling achievement and fewer behavior problems. In the US, the role of the parent as a member of the multidisciplinary team has changed. This is due to behavior intervention services changing from child-centered to family-centered (Turnbull, Turnbull, Weheymer, & Shogren, 2012). The parent works with the team members in developing appropriate educational goals. The parent implements home, academic, and behavior strategy (Schwartz, 2005). Parents can initiate an evaluation process by requesting the school system to evaluate the child for the presence of a disability.

2.7.3 The Role of School Counselors
Counselors provide school counseling curriculum to groups or individuals. They also encourage families to get involved in the education process of their children. They console and collaborate with staff and families to understand the special needs of learners
and understand the adaptation they need to make for the learners. They also provide assistance with developing academic and transitional plans for children.

2.7.4 The Role of Social Workers
According to Gardner (2008), a social worker coordinates the efforts of educators, families, and outside agency to ensure students attendance improves. They help the family access charitable organizations on terms such as food, clothing, and medical care among others. They protect adults and children from harm. They may serve as case managers (Schwartz, 2005).

As a result of varying degrees of social disparities, the overall role of social workers usually varies from one region to the next. In Kenya, for instance, social work is affected by factors such as traditions, beliefs, and economic practices of the people living in areas targeted by social workers (Spitzert, Twikirize, & Wairire, 2014). Hence, to determine the effectiveness of social workers in terms of educating special needs learners, the prevailing and often multivariate regional practices must always be considered.

2.7.5 The Role of School Nurses
School nurses educate on health topics and managing distribution of medicine taken by students (Belmonte-Mann, 2019). They check and interpret medicate records. They are a liaison between the students and families.
2.7.6 The Role of Speech and Language Pathologists

Speech and language therapists assess, diagnose, and provide language therapy to individuals with auditory speech deficit and communication disorder. They then design an intervention to address them, deliver services, and monitor students’ progress (Prelock, Hutchins & Glascoe, 2008).

2.7.7 Administrative Support

According to Kauffman and Hallahan (2011), administrative support looks at how well the school has kept instructional materials and maintains school facilities. The school that maintains school management can be strong if it had textbooks policies, the frequency of staff meeting, parents meeting, and instructional meeting. Fish (2008) asserts that the administration takes part in IEP development and meetings. Another professional include psychiatrist who trains medical doctors, prescribe medications and spend time with them. Audiologists evaluate hearing for possible impairments, which may help obtain a hearing aid.

The role of multi-disciplinary teams in assessing special needs children in the selected counties is not succinctly clear, thereby raising the question of whether they are even functional in the selected EARCs. By assessing the assessment ans placement options in the EARCs, this study aimed to suggest feasible methods of facilitating the intergration of multi-disciplinary teams in the assessment and placement function of the EARCs.
2.8 Competencies of Assessors in the EARCs

2.8.1 Recording Skills

The assessment process encapsulates the act of gathering data from the formulated tests. It also involves a record review of learners such as the medical records, which shows his/her demographic information and is useful in the documentation. Further, the research attempted to find out the interventions that were offered when problems appeared based on the severity. An assessor can also generate the background information from the parent or guardian.

2.8.2 Observation Skills

An assessor should be able to observe the physical, social, and emotional characteristics of a learner with special needs. A learner with visual impairment may possess some physical and behavioral characteristics. Observation can be non-systematic, systematic, and informal (Ysseldyke & Bolt, 2007). In this case, the assessor observes a learner in his or her natural environment and notes down behaviors characteristics and personal interactions. In the systematic observation, the assessors observe in more defined behaviors and specify the events that define behavior and finally measure the frequency duration amplitude of the behavior.

2.8.3 Measuring Skills

According to Peer and Reid (2011), learners with visual impairment should be tested using a Snellen chart. The learners have to stand 6 meters away from the chart reading the letters starting from the better eye (BE) then the next eye. An occluder is used to close
the eyes in turn while reading. The adjustment is made up to where the learner can read
from.

Gargiulo, (2006) asserts that the assessment of learning begins with measuring the
hearing thresh-hold. An assessor should be able to measure the rate at which sound
source vibrates in hertz (H\(\text{Z}\)). He or she should be able to measure the sound pressure in
decibels (DB). Also able to perform basic hearing process like pure-tone audiometric
conducted through earphones.

Interpretation of information from formal and informal assessments is vital to determine
the relevant results. The assessor should be able to interpret the individual performances
in reference to criterion-referenced, standard referenced (Melville, 2019). It is vital for
the assessor to be knowledgeable in the above assessment because some are challenging
like development equivalence and developmental quotients which may be age or grade
equivalence. It has a challenge like systematic misinterpretation among others.

Analysis and interpretation of findings (data) may assist in checking the accuracy of data
writing assessments report as well as translating test results. Data accuracy aims at
checking the correctness of scores charity of notes completeness of information gathered
and presence of gaps which can be solved by a team of parents through giving additional
information. Assessment results are vital in making educational decisions (Salvia, et al,
2004).
2.8.4 Communicating the Findings

Communicating the findings of the assessment is a critical stage in the assessment. Parents react differently to the news of their child’s disability (Gargiulo, 2006). Parents experience shock and disbelief, denial, and escape from the reality of disability, which is characterized by signs of grief resulting in depression and withdrawal. The assessor should therefore prepare the parent psychologically before giving the feedback of the assessment results. This might enable the parents to calm down and gradually come to acceptance on seeing the reality of things. In conclusion, an assessor should also have skills of building rapport with his or her clients, be a collaborator in that he/she has to work with another multi-disciplinary team in order to come with appropriate results. Also, being technologically compliant will ease the work of an assessor.

Though ideally premused to be highly competent, there exists little research on the exact competencies possessed by EARC assessors. Hence, the study sought to identify the level of academic progression achieved by EARC personnel such as the special needs education teachers.

2.9 Summary

The literature anatomization conducted shows that Educational Assessment and Resource Centers (EARCs) play a central role in facilitating the education of special needs learners. In the selected counties namely Uasin Gishu, Elgeyo Marakwet, Baringo, Trans Nzoia, and Kakamega, EARCs have alleviated the challenges of teaching special needs learners
as well as simplified the knowledge and skills acquisition amongst children with learning difficulties.

The analyzed literature also indicates that there exist several methodologies of identifying learners with special needs, some of which have been implemented in the targeted counties. These methods include observations, tests, diagnostic approaches, and developmental screening procedures. Furthermore, the literature confirms that the functionality of EARCs is hindered by factors such as poor distribution of resources necessary to facilitate the realization of wholesome identification and placement of special needs learners.

In addition, the research study showed that best practices of identifying learners with special needs are not always followed in Kenya. This non-compliance creates problems such as the haphazard amalgamation of special needs learners into general education curriculums and classrooms and facilitating the culture of attaching derogatory labels to PWDs. This ultimately affects the identification function conducted by EARCs in Kenya. Also, the EARCs face considerable shortages of funds, personnel, tool, and equipment, and significant mobility issues.

Moreover, the reviewed literature brought to the fore the prevalence of gaps in terms of evidence-based practice whereby the personnel and measures taken towards increasing the efficacy of EARCs fail to achieve the intended results. This was in line with the CIPP evaluation model which was developed by Daniel Stufflebeam (1960) that aimed at providing timely information in a systematic way for decision making which is a
proactive application of evaluation. Also, the research pointed to an apparent disconnect between EARCs personnel and teachers thereby leading to weakened working relationships which in turn deaden the process of teaching special needs learners.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction
This chapter presents research design, variables, study locale, target population, sampling techniques, sample size, research instrument, pilot study, validity, reliability, data collection techniques, data analysis, and logistical consideration.

3.2 Research Design
The study employed a descriptive quantitative research design. This research design is the most desirable for the study sought to analyze the functions of EARCs and the challenges they face, this design helped in the gathering data that aided the description of events and the organization of the collected data. This design involves the collections of quantitative information that could be tabulated along a continuum in numerical form, such as scores on a test or the number of times a person has chosen to use a certain feature of a multimedia program, or it can describe categories of information such as gender or patterns of interaction when using technology in a group situation. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Kurniawan, 2019). It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. The design can
obtain information that can be analyzed to extract patterns and to make comparisons (Orodho, 2009).

3.2.1 Research Variables

3.2.1.1 Independent Variables

The independent variables were identification, tools of assessment, placement options, EARCs involvement in assessment, and challenges facing the EARCs.

3.2.1.2 Dependent Variables

The dependent variable was assessment of learners with special needs, the study sought to determine whether it was influenced by the independent variables.

3.2.1.3 Intervening Variables

The intervening variables for the study were the Government policies, Competency of assessment officers and environmental factors, these were hypothetical variable that explains causal links between other independent and dependent variables.

3.2.2 Research Methodologies

The study used qualitative research which is primarily exploratory research. The method was used to gain an understanding of the functions and challenges faced by the EARCs in five selected Counties in Kenya. Quantitative data collection methods involved semi-structured questionaires and observations.
3.3 Study Locale

The study was conducted in five EARCs in five selected counties in Kenya. They included Uasin-Gishu, Elgeyo Marakwet, Baringo, Trans Nzoia, and Kakamega County. These centers were selected because they were accessible by the researcher and as a result of time and financial constraint (Rowley, 2012).

3.4 Target Population

The target population was 47 Educational Assessment and Resource Centers (EARCs) coordinators in 47 counties in Kenya and 150 SNE teachers.

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Techniques

According to Kombo & Tromp (2006), sampling is a process of selecting a number of individual or objects from a population such that the selected group contains elements of representatives’ characteristics of the entire group. The researcher employed purposive sampling and convenient sampling techniques. Purposive sampling was used in selecting 5 EARCs in 5 selected counties in Kenya while convenient sampling technique was applied in the selection of 80 special needs teachers.

3.5.2 Sample Size

According to Mugenda & Mugenda (2003), a sample size of at least thirty respondents is required for descriptive studies. The table below represents the sample size of the study.
Table 3.1: Sample size

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Target population</th>
<th>Sample</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EARC coordinators</td>
<td>47</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>SNE (Teachers)</td>
<td>150</td>
<td>80</td>
<td>53</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>85</td>
<td>43</td>
</tr>
</tbody>
</table>

3.6 Research Instruments

The researcher gathered the information using questionnaires for SNE teachers, questionnaires for the EARC co-ordinators and observation schedule. The use of several tools enhanced data collection and credibility of research. A questionnaire is a collection of items to which a respondent is expected to give own reaction (Onen & Oso, 2016).

3.6.1 Questionnaire For SNE Teachers

Questionnaire for SNE teachers was used to obtain data from SNE teachers in 5 EARC centres in five selected counties. The questionnaire contained two major sub sections that included the general information about the SNE teachers and informations how learners with special needs are identified and the tools and equipments used in the assessment quickly (Orodho, 2003).

3.6.2 Questionnaires for EARC Co-ordinators

Questionnaire for EARC co-ordinators was used to obtain data from the sampled EARC co-ordinators in five selected counties. The questionnaire contained two major sub sections that included the general information about the EARC co-ordinators and
informations how learners with special needs are identified and the tools and equipments used in the assessment.

3.6.3 Observation Schedule

The researcher used the observation schedule to record observable information on the available tools and equipment used in the assessment of learners with special needs in five selected EARCS in the five designated counties in Kenya.

3.7 Pilot Study

A pilot study was conducted in Ngala EARC in Nakuru county where the 1 EARC coordinator and 5 SNE teachers were involved. This was vital as it promoted the validity and reliability of the research instruments (Mugenda & Mugenda, 2003).

3.7.1 Validity

Validity is the degree to which empirical measures of a concept represent it (Orodho, 2009). The tools were administered to the pilot group and examination of item relevance to the variables and objectives was done by the researcher. To improve the face validity of the instrument, the pilot study questionnaires were scrutinized to identify items that seem unclear or ambiguous to the respondents. Such items were reviewed, thereby improving the face validity of the instruments. According to Borg and Gall (1989), content validity of an instrument is improved through expert judgment. As such, the researcher sought for assistance from the supervisors and other university lecturers, who are experts in research, to ensure the validity of the instrument.
3.7.2 Reliability

Reliability shows how consistent an instrument yields some results when administered at different times (Colin & Julie, 2005). To check reliability, the researcher applied test-retest method on the pilot group. It means using the same instrument on the same group for the second time in two weeks (Mugenda & Mugenda, 2003). The researcher determined reliability of coefficient of all instruments after piloting using the Cronbach Coefficient Formula because the data was majorly collected in a scale format.

3.8 Data Collection Techniques

Data collection refers to gathering specific information aimed at proving or refuting some facts (Kombo and Delno, 2006). Before proceeding to collect data from the selected respondents the researcher obtained an introduction letter from Kenyatta University. This letter helped the researcher to introduce herself to the respondents, brief them on the purpose of the study and book appointments for data collection. The researcher assured the respondents that their responses would be treated with strict confidentiality and that the data would be used for the purpose of this study only. Once consent was granted, the researcher met SNE teachers and the selected EARCs coordinators on separate appointment dates and administer the questionnaires. During the visit to the selected EARCs the researcher made observation of the available tools and equipments for assessments.
3.9 Data Analysis

According to Orodho (2009), it is a process of arranging the study instruments in a systematic manner to enable understanding. Data collected from respondents will be processed and analyzed. According to Kothari, (2004) this is essential for a scientific study and for ensuring that all relevant data for making contemplated comparisons and analysis are available.

3.9.1 Questionnaires for County Education Officers and SNE Teachers

Information from the questionnaires were coded and entered into the computer for analysis using the computer package, Statistical Package for Social Sciences (SPSS) software. Analysis was based on both descriptive and inferential statistics. The results were presented in form of frequency distributions, graphs and tables.

3.9.2 Observation Schedule

Information from the observation schedules was considered and analysed using Content analysis, this involved categorizing the verbal or behavioural data to classify, summarize and tabulate the data.

3.10 Logistical and Ethical Considerations

3.10.1 Logistical Considerations

The research permit was sought from National Commission for Science, Technology and Innovation (NACOSTI) after an introductory letter from Kenyatta University was presented them. This allowed the collection of data in assessment centres in the selected Counties. Thereafter, the researcher visited the county commissioners, County Education
Officers (CEO) from the 5 selected Counties to create rapport and sought consent from the respondents to collect data in their respective counties. The assessment centres coordinators from the selected centers gave consent to the researcher to access and conduct research in the centres.

3.10.2 Ethical considerations

Before the actual issuing of questionnaires and carrying out the observations the research ensured that no disturbance was created to the EARCs by booking appointments at the suitable time. The information collected was treated with confidentiality. The researcher assured the respondents that the information would remain confidential and would only be used for the purpose of the study.
CHAPTER FOUR
FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction
The chapter focuses on presentation of the research findings on bio-data information that followed five research objectives which sought to:

i. Establish how the identification of learners with special needs is made in the selected EARCs;

ii. Identify the tools and equipments used in assessing learners with special needs in the selected EARCs;

iii. Determine placement options available for learners with special needs in selected counties;

iv. Examine how often the given activities were conducted in the EARCs.

v. Find out the challenges faced by the selected EARCs in Kenya.

4.2 Demographics of the SNE Teachers and EARC Coordinators

4.2.1 Gender of the SNE Teachers and EARC Coordinators
The gender of the special needs education (SNE) teachers and EARC coordinators is presented in Figure 4.1.
The majority (62.5%) of the teachers were female. The results indicate that there was an imbalance in the representation of teachers with the qualifications in SNE. Majority of the EARC coordinators from the selected centers were male. This suggests to the government that there is inequality in the representation of gender regarding the management of EARC. The findings contradict those of parental representation in the assessment processes. More women should, therefore, be considered for EARC managerial positions to assist their parent colleagues who are burdened with child-bearing responsibilities.
4.2.2 Age of the SNE Teachers and EARC Coordinators

![Age of the SNE teachers and EARC coordinators](chart.png)

**Figure 4.2: Age of the SNE teachers and EARC coordinators**

From figure 4.2, the majority of SNE teachers, representing 46.3%, belonged to 41 - 50 years age bracket. The next biggest group fell under the 31-40 years age bracket while the SNE teachers who were over 50 years only comprised of 8.8% of the SNE teachers within the selected counties. The minority of the sampled teachers fell under the 20 - 30 years age bracket. Teachers with over 50 years of age have great insight regarding the identification of various issues that students face especially regarding special needs. Also, such teachers had less than 10 years before retiring from the Teachers Service Commission (TSC) employment.

The age of EARC coordinators may indirectly imply how much working experience a coordinator have in the assessment and placement of learners with special needs. Sixty
percent of the coordinators fell under the 46-50 years bracket. The coordinators under this latter bracket may have the required experience to deal with diverse cases of special needs and thus assessment and placement are likely to be done appropriately by the center to different designated institutions. The frequency of the age of the EARC coordinators under the 35-40 and 41-45 years brackets tied with 20% representation each.

4.2.3 Education Qualifications of the SNE Teacher

The researcher sought to understand the educational qualifications among the SNE teachers within the selected counties. The results are displayed in Table 4.1.

Table 4.1: Education qualifications of the SNE teacher

<table>
<thead>
<tr>
<th>Education qualifications</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BED in special needs</td>
<td>43</td>
<td>53.8%</td>
</tr>
<tr>
<td>Diploma in special needs</td>
<td>29</td>
<td>36.3%</td>
</tr>
<tr>
<td>Certificate (P1)</td>
<td>4</td>
<td>5%</td>
</tr>
<tr>
<td>MED in special needs</td>
<td>3</td>
<td>3.8%</td>
</tr>
<tr>
<td>Ph.D. in special needs</td>
<td>1</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

From Table 4.1, 53.8% of the SNE teachers, which comprised of a majority of the teachers, had acquired a Bachelor’s degree in special needs. Those who had acquired a diploma in special needs formed the next largest group (36.3%). Additionally, 5%, had acquired a certificate in education (P1) while 3.8%, Master of Education in Special Needs. Only one teacher, representing 1.3% had attained a Doctor of Philosophy degree in Special Needs. Teachers who acquire post-graduate training in special needs, Master
and Ph.D., have advanced the level of dealing with learners with special needs, which is an added advantage to the selected counties.

### 4.2.4 Working Experience of the SNE Teachers and EARC Coordinators

The study sought to see the work experience of the sampled SNE teachers and the results are as presented in Table 4.2.

**Table 4.2: Working experience of the SNE teachers**

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 15 years</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td>16 - 20 years</td>
<td>19</td>
<td>23.8</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>15</td>
<td>18.8</td>
</tr>
<tr>
<td>Above 20 years</td>
<td>11</td>
<td>13.8</td>
</tr>
<tr>
<td>5 years and below</td>
<td>7</td>
<td>8.8</td>
</tr>
</tbody>
</table>

The results in Table 4.2 show that majority (35%) had a teaching experience between 11 to 15 years. Those under the 16-20 years of experience were 23.8%, which was the second group in terms of size. Teachers with a working experience under the 6 - 10 years bracket had the third highest group accounting for 18.8% of all SNE teachers. The most experienced group of teachers with over 20 years of teaching experience comprised of 13.8% of the sampled teachers. The teachers who fall into this category understand their work substantially well. Further, they are able to detect the students who experience difficulties in learning and apply the necessary intervention measures depending on the symptoms and signs of the disability. As such, it is apparent that Kenya has a number of experienced teachers who can deal with students with different challenges in the learning
process. Finally, the smallest group of teachers, comprising of about 8.8% of the sample, had the least teaching experience of 5 years and below.

The individual level of education determines how best they perceive and deal with learners with special needs such as those with visual, hearing, physical, and mental impairments (Mutungi & Nderitu, 2014; Brent, 2015). As such, all the coordinators had acquired Bachelor of Education degrees in Special Needs Education. This shows that the selected center coordinators had adequate training in different areas of special needs. As such, proper assessment and placement is likely to be done due to such competencies.

The number of years of working as the coordinator of EARC determines how well the centers carry out their activities. The results for different working experience categories are presented in Table 4.3.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 20 years</td>
<td>3</td>
<td>60</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Above 20 years</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

As shown in Table 4.3, the majority (60%) of the sampled coordinators had a working experience under the 11-20 years category. The categories, 6-10 and above 20 years, had a tie of 20% representation each. Those with above 20 years of working experience have
developed crucial insights regarding different types and levels of disabilities. It also implies that they can offer better services than their inexperienced counterparts.

4.3 Identification of Disabilities of Learners with Special Needs

The objective one of the study sought to establish how the identification of learners with special needs was made in the selected EARCs.

4.3.1 SNE Teachers Responses

In order to identify the different ways in which the assessments of learners with disabilities are done, some questionnaires were given to SNE teachers from five selected EARCs. The results for responses given by the teachers are presented in Figure 4.3.

![Figure 4.3: Overall results for teachers’ responses on the identification of disabilities](image)

The majority (50%) of the teachers used various psychological tests to identify learners with various disabilities. Some (43.8%) responded that they had to discuss with parents...
before concluding that a learner suffered from a certain disability. Those who recommended that identification should be done by EARC\textsc{s} comprised of about 6.3\% of the sampled SNE teachers. None of the teachers used screening to identify learners with various disabilities. Similarly, none of the teachers used other methods to identify learners with various disabilities.

**Table 4.4: Teachers responses about the identification of disabilities among learners in the selected counties**

<table>
<thead>
<tr>
<th>County</th>
<th>Identification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uasin Gishu</td>
<td>Testing</td>
<td>11</td>
<td>68.8</td>
</tr>
<tr>
<td></td>
<td>Parental report</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>EARC</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Elgeyo Marakwet</td>
<td>Parental report</td>
<td>11</td>
<td>68.8</td>
</tr>
<tr>
<td></td>
<td>Testing</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>EARC</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Baringo</td>
<td>Testing</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Parental report</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
<td>EARC</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trans Nzoia</td>
<td>Testing</td>
<td>9</td>
<td>56.3</td>
</tr>
<tr>
<td></td>
<td>Parental report</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>EARC</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Kakamega</td>
<td>Testing</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Parental report</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td></td>
<td>EARC</td>
<td>1</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The results in Table 4.4 show that 80% of the sampled counties used psychological tests as the major method to identify disabilities among learners. These counties include Uasin Gishu, Baringo, Trans Nzoia, and Kakamega. The psychological tests may include the normal continuous assessment tests or specialized tests such as Raven's tests in the cases of mental impairment (Gopal & Sindhya, 2017). Only the SNE teachers from Elgeyo Marakwet (68.8%) discussed with parents, as the major method, before concluding that learners had certain disabilities. This method is critical especially when a learner has some medical or family background that the parent knows with certainty. Twenty five percent of the teachers within the county used tests. Majority (68.8%) of the teachers in Uasin Gishu used tests as the major method of disability assessment while (25%) engaged teachers. Half (50%) of the teachers in Baringo used tests as the major method of disability assessment while (43.8%) engaged teachers. Similar results were observed in Kakamega.

Additionally, few teachers referred the learners for assessment of disabilities to the EARCs. For instance, 6.3% of the teachers in each county referred learners to the EARCs for specialized assessments and placements. Finally, none of the teachers reported that they did a specialized screening of different types of disabilities among the learners. Such screeners may include ICT-based tools and equipment especially for the cases of audio-visual and mental impairments. The findings agrees with (Rony, 2017). Who found that blind students use ICT as support in their learning process and it helps them to be included in regular school, if their teachers provide adequate ICT materials as support in
their teaching practice. The teacher’s experiences shows that they need proper training in matters of using ICT in their teaching practice.

4.4 Tools and Equipments Used to Assess Learners with Special Needs

The objectives two of the study sought to identify the tools and equipments used in assessing learners with special needs in the selected EARCs.

4.4.1 SNE Teachers Responses

Teachers were asked about the major tools and equipment that they used when identifying learners’ with disabilities. The results are presented in Figure 4.4.

![Figure 4.4: Teachers’ responses on tools and equipment used in identifying learners with special needs in their schools](image-url)

The findings in Figure 4.4 show that Snellen charts were the major tools used in their schools with 84% usage. The rest were audiometers with 16% usage. The findings may
imply that most of the schools within the selected counties were faced with issues of visual and hearing impairments. However, it shows that the assessment of disabilities was not all inclusive within the majority of the schools within the selected counties. Devices such as speech kits, peg boards, and soft boards among others were lacking, which shows that learners that suffered from other forms of disabilities were likely to face an untimely identification.

Figure 4.5 presents the usage of the major tools used in disabilities assessments in the different counties.

**Figure 4.5: Teachers’ responses on tools and equipment used in identifying learners with disabilities per county**
Elgeyo Marakwet, Baringo, and Kakamega County had the highest usage of Snellen charts with 87.5% usage. Audiometers had the highest usage in Trans Nzoia at 25% followed by Uasin Gishu with about 18.8%.

An observation schedule was used by the researcher to find out the tools that were used to assess learners with special needs from the selected EARC.s. The results are presented in Figure 4.6.

All the EARC.s in all counties used audiometers, Snellen charts, and speech kits as shown in Figure 4.6. Only 20% of the EARC.s used pegboards while none of the EARC.s used softballs. However, according to IDEA (2004), learners with special needs or disabilities must be subjected to education atmospheres that are Least Restrictive Environments (LREs). Additionally, Brian & Haegele (2014) reported that softballs are critical in the
assessment of physical, visual, and hearing impairments among learners with special needs.

4.5 Placement Options Within the Selected Counties

The objectives three of the study sought to determine placement options available for learners with special needs in selected counties. The results are presented in Figure 4.7.

Figure 4.7: Available placement options within the selected counties

As shown in Figure 4.7, the majority (80%) of the special needs learners were placed in special schools that were privately owned. Nyakundi (2015) also found that the majority (61%) of the learners were placed in privately owned special schools in Kajiado County. The researcher stated that most of the privately special schools dealt with several disabilities as opposed to particular impairments. Such kind of placement does not meet the IDEA’s requirement of LRE.
Some (10%) of the learners were placed at regular (mainstream) schools with special units where they would associate with other learners. Such placements may be inimical to the improvement of special needs learners’ performance. For instance, learners with hearing impairments of varying degrees should be placed into special schools dealing specifically with hearing impairment to receive Individualized Educational Programmes (IEPs) (Gargiulo, 2006). Such IEPs can be achieved in vocational and home-based programs where only those learners with particular disabilities are placed in the relevant areas of activities. Within the selected counties, placement at vocational institutes and home-based programs tied at 5% each.

4.6 Involvement of EARCs in Assessing Learners with Special Needs

The objective four of study sought to examine how often the given activities are conducted in the EARCs in assessing learners with special needs.

4.6.1 EARCS Function in Assessing Learners With Special Needs

The results for this section are presented in Table 4.5.
Table 4.5: Results of the involvement of EARCs in assessing learners with special needs

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of audio-visual aids</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0.71</td>
</tr>
<tr>
<td>Co-ordinate seminars</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Coordinate evaluation and assessment on schools</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.2</td>
<td>0.45</td>
</tr>
<tr>
<td>Provide hearing aids</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2.2</td>
<td>0.84</td>
</tr>
<tr>
<td>Visiting schools to advise teachers on how to identify children with special needs and do an assessment</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3.6</td>
<td>0.55</td>
</tr>
<tr>
<td>Teachers visit assessment centers</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2.8</td>
<td>1.3</td>
</tr>
<tr>
<td>Give feedback to county education officers</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.6</td>
<td>0.55</td>
</tr>
<tr>
<td>Give feedback to MoEST</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.2</td>
<td>0.45</td>
</tr>
<tr>
<td>Hold seminars with teachers with special need children</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

In Table 4.5, 60% of the EARCs often provided audio-visual aids to learners with special needs (M=2, SD=0.71). Therefore, the current study shows that special needs learners may be subjected to learning just like the normal learners. Rasul, Bukhsh, & Batool (2011) reported that audio-visual aids assist the special needs students in understanding various topics by making learning real and easier.
The majority (40%) of the EARCs rarely co-ordinated seminars that involved all the stakeholders who represent the special needs learners (M=2.8, SD=1.3). This may imply that the identification and placement of learners with special needs might not be holistic. Bii & Taylor (2013) reported that EARCs should hold seminars and short-term training among the key stakeholders in SNE. This will ensure that learners with special needs are identified and placed appropriately.

The findings in Table 4.5 show that 80% of the sampled EARCs often coordinated evaluation and assessment in schools (M=2.2, SD=0.45). A report by Bii & Taylor (2013) showed that EARCs should offer support to special schools. In the current study, EARCs coordinated some evaluation and assessment of learners activities in the mainstream and regular schools. The centers offer extra support where needed to ensure that learners with diverse special needs acquire education in a more simplified way. They advise parents on the best options for placement depending on the type and magnitude of disability.

Forty percent of the EARCs often provided hearing aids to learners with hearing impairment and an equal number sometimes availed the aids to the learners (M=2.2, SD=0.84). The hearing aids may include earphones and headphones that may be provided in collaboration with donors and other stakeholders (Cullen et al., 2012). Furthermore, Hasselbring & Glaser (2000) shows that hearing aids are important in the improvement of performance for learners with hearing impairments.
The majority (60%) of the EARCs were sometimes involved in visiting schools to advise teachers on how to identify children with special needs and do an assessment (M=3.6, SD=0.55). Teachers are advised and guided on how best to handle specific disabilities among learners. As such, Odebero, Maiyo & Mualuko (2007) reported that EARCs should offer more refresher courses to SNE teachers among other teachers while the government should increase more vocational institutions to assist special needs learners.

The findings in Table 4.5 show that 60% of the teachers often visit EARCs to learn more about dealing with various forms of disabilities amongst learners (M=2.8, SD=1.3). They mingle with other teachers who are deployed to do the disability assessments in the EARCs among other professionals within the centers. According to the Republic of Kenya (2009), teachers should be trained for more capacity building at the EARCs to improve their handling of special needs learners. Therefore, all the SNE teachers in Kenya should be able to interact with their colleagues at the EARCs among other professionals such as therapists, clinicians, and specialists to improve their assessment capacity and placement of special needs learners.

Sixty percent of the EARCs often gave their feedback to the County Director of Education while the remaining 40% very often gave their feedback to the director (M=1.6, SD=0.55). A feedback to the director of education signals to the government the required support that it can accord to a particular center including funding and dispatching of the relevant resources to be used by the centers. According to Bii & Taylor
(2013), EARCs majorly gets funds from the government. Others may include donors who have the goal of enhancing the special needs education among disabled learners.

The majority (80%) of the EARCs often gave their feedback to the Ministry of Education, Science, and Technology (MOEST) while sometimes the remaining 20% gave their feedback to the Ministry (M=2.2, SD=0.45). MOEST have formulated policies that are the guiding tools to the running of EARCs in Kenya. The policies, which include funding and deployments, are followed when regulating EARCs while considering the feedbacks that come from the centers. The Ministry also acts for the best interest of disabled learners as guided by the Individuals with Disabilities Education Improvement Act (IDEA) of (2004).

Finally, 40% of the EARCs often hold seminars with teachers with special need children while an equal number of centers rarely hold them (M=3, SD=1). As reported by Republic of Kenya (2009) and Bii & Taylor (2013), one of the major functions of EARCs is the arrangement of seminars with SNE teachers as they train them more on the issues of special needs education. Therefore, there should be an improvement in the number of times that EARCs in Kenya convene seminars with teachers to improve their ways of handling learners with special needs education.

4.6.2 Proffesionals Involvement

The objective five of the study sought to find out the professionals who were involved in the assessment of learners with special needs at the selected EARCs in the selected
counties. The data that was captured in the observation schedule was analyzed and summarized in Table 4.6.

Table 4.6: Professionals in the assessment within the EARCs

<table>
<thead>
<tr>
<th>Professional</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialists</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>SNE teachers</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Parents</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Nurses</td>
<td>3</td>
<td>60</td>
</tr>
</tbody>
</table>

All the EARCs in all counties used specialists (pediatrician, ophthalmologist, and audiologist among others) to assess disabilities among the special needs learners. Similarly, all the EARCs used teachers trained in special needs education to assess special needs learners. This is in concurrence with the guidelines of the special needs policy (Republic of Kenya, 2009). Eighty percent of the centers engaged special needs learners’ parents, which contradicts the recommendations of the national policy of 2009 that requires parents to be at the forefront when their children are being assessed for disabilities. Nurses were used by 60% of the EARCs while no doctors and social workers were involved during the exercise.

4.7 Challenges Faced by EARCs in the Selected Counties

The fifth objective sought to find out the challenges faced by the selected EARCs in Kenya. The challenges are presented in Table 4.7.
Table 4.7: Challenges faced by EARCs in different counties

<table>
<thead>
<tr>
<th>County</th>
<th>Challenge</th>
<th>County</th>
<th>Challenge</th>
<th>County</th>
<th>Challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uasin Gishu</td>
<td>1. Inadequate personnel</td>
<td>Elgeyo Marakwet</td>
<td>1. Political instability and insecurity due to cattle rustling in some areas</td>
<td>Trans Nzoia</td>
<td>1. Lack of adequate personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Lack of standardized tools and equipment</td>
<td></td>
<td>1. The language barrier between the professionals and the parents/guardian/special needs children</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Lack of standardized tools and equipment</td>
<td></td>
<td>2. EARCs lacking enough trained personnel</td>
<td></td>
<td>2. Inadequate funding to facilitate assessments, sensitization, training, seminars, and establishment of special units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Logistical challenges due to hilly and ragged terrain with several valleys</td>
<td></td>
<td>3. Poor coordination and collaborations between EARCs, education stakeholders, and financiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. EARC officers covering extensive areas within the county</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Inadequate or no collaborations between the EARC and the relevant stakeholders such as donors</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Stigma towards disabled thus some parents hide their children</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. Parents not aware of EARCs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. The vast area to be covered due to inadequate EARCs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
6. Few EARCs within the county
6. The negative attitude towards the centers by unknowledgeable parents
6. Lack of ideal centers that allow for LRE due to small sizes and no privacy
6. Special needs learners facing stigma thus some parents do not expose them as a result
6. Some SNE teachers are not specialized in some types of disabilities

7. Few available schools for mass referrals
7. Lack of modernized tools and equipment
7. Little or no support from relevant stakeholders such as donors
7. Poor room conditions due to lack of acoustic roofs, large space, privacy, and modernization.
7. Low knowledge of the existence and functions of EARCs by some parents with special needs children

8. A large number of learners being assessed for disabilities
8. Political instability and insecurity.

9. Many parents not aware of the existence of EARCs

One of the major challenges faced by EARCs within the selected counties was inadequate personnel. For instance, personnel such as medical officers and social workers were mostly lacking in the assessment centers. For an EARC to function fully, it requires all the relevant stakeholders in the education sector, medical specialists, parents, and specialists (Bii and Taylor, 2013).

Inadequate tools and equipment were also mentioned as a major challenge facing EARCs across the selected counties. Thakrar, Wolfenden, & Zinn (2009) also found that inadequate resources were great impediments to the improvement of special needs
education. It is therefore critical for the Kenyan government to consider dispatch of modern tools and equipment in a timely manner to avoid inconveniences in the assessment of special need learners.

Inadequate number of EARCs, lack of enough sensitization about the centers, and low collaborations among the relevant stakeholders in the area of special needs were also mentioned as other challenges that the centers faced. The government should maximize the use of EARCs to enhance a holistic handling of special needs learners. When an adequate number of EARCs operated with active collaborations before 1991, the success led to the increase in their number to 250 (Bii & Taylor, 2013) but currently few are fully operational. This shows that there is potential to improve the use of EARCs if their management is improved.
CHAPTER FIVE
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction
The purpose of this study was to analyze the functions and the challenges faced by EARCs and its challenges in the five selected counties namely; Uasin Gishu, Elgeyo Marakwet, Baringo, Trans Nzoia and Kakamega. This chapter comprises of the summary of the main findings, conclusions, recommendations, and suggestions for further research.

5.2 Summary
5.2.1 Identification of Learners with Special Needs in EARCs
The first objective was to establish how the identification of learners with special needs is made in the selected EARCs. First, the majority (50%) of the teachers used different tests to identify learners with various disabilities. Some (43.8%) responded that they had to discuss with parents before concluding that a learner suffered from a certain disability. Those who recommended that identification should be done by EARCs comprised of about 6.3% of the sampled SNE teachers.

5.2.2 Tools and Equipment Used to Assess Learners with Special Needs
The second objective sought to identify the tools and equipment used in assessing learners with special needs in the selected EARCs. First, teachers reported that they majorly used Snellen charts in their schools with about 84% usage. The rest were audiometers with about 16% usage. Secondly, parents were asked about the tools that they knew which were used by EARCs. The majority (45%) did not know about the
major tools used by EARCs in assessing learners with special needs. About 35% others responded that Snellen charts were used by EARCs while the minority (20%) said that audiometers were used in the assessment. Thirdly, an observation schedule was used by the researcher to find out the tools and equipment used by EARCs. All the EARCs in all counties used audiometers, Snellen charts, and speech kits. Only 20% of the EARCs used pegboards while none of the EARCs used softballs.

5.2.3 Placement Options Within the Selected Counties

The third objective aimed at determining the placement options available for learners with special needs in selected counties. The majority (55%) of the special needs learners were placed in special schools. Also, about 25% of the placements were recommended by the SNE teachers who were most likely to refer the special needs students to special schools. Additionally, some learners were placed at regular (mainstream) schools with special units where they would associate with other learners.

5.2.4 Activities Conducted in the EARCs

The fourth objective sought to examine how often the given activities were conducted in the EARCs in assessing learners with special needs. First, about 60% of the EARCs often provided audio-visual aids to learners with special needs (M=2, SD=0.71). Second, the majority (40%) of the EARCs rarely co-ordinated seminars that involved all the stakeholders who represent the special needs learners (M=2.8, SD=1.3). Third, 80% of the sampled EARCs often coordinated evaluation and assessment in schools (M=2.2, SD=0.45). Fourth, about 40% of the EARCs often provided hearing aids to learners with
hearing impairment and an equal number sometimes availed the aids to the learners (M=2.2, SD=0.84). Fifth, the majority (60%) of the EARCs were involved in visiting schools to advise teachers on how to identify children with special needs and do an assessment (M=3.6, SD=0.55). Sixth, about 60% of the teachers visit EARCs to learn more about dealing with various forms of disabilities amongst learners (M=2.8, SD=1.3). Seventh, about 60% of the EARCs often gave their feedback to the County Director of Education while the remaining 40% very often gave their feedback to the director (M=1.6, SD=0.55). Eighth, the majority (80%) of the EARCs often gave their feedback to the Ministry of Education, Science, and Technology (MOEST) while sometimes the remaining 20% gave their feedback to the Ministry (M=2.2, SD=0.45). Finally, about 40% of the EARCs often hold seminars with teachers with special need children while an equal number of centers rarely hold them (M=3, SD=1).

The researcher sought to find out the professionals that were involved in the assessment of special needs learners. All counties used specialists and SNE teachers while about 80% of the centers engaged special needs learners’ parents. Additionally, nurses were used by about 60% of the EARCs. However, no doctors and social workers were reported to be involved in the assessment exercise within the selected counties.

5.2.5 Challenges faced by EARCs in the Selected Counties

The fifth objective aimed at finding out the challenges faced by the selected EARCs in Kenya. Some of the major challenges include inadequate personnel, funding, tools and
equipment, centers among others. Others may include poor collaborations and stigmatization against the special needs learners.

5.3 Conclusions

Most of the SNE teachers did not involve parents when assessing learners with special needs. Also, some parents did not know about the methods used by EARCs. Such situations may have contributed to some of the challenges that the centers face such as poor collaborations among the key stakeholders. Failure to involve parents may also lead to incomplete assessment since parents have a history of their children’s special needs since their birth time.

Since the majority of the tools available were Snellen charts and audiometers, some critical assessments regarding the mental and physical impairments might have been overlooked. Low use of pegboards limits the eye-hand coordination in the assessment of the visually impaired learners. Failure to use softballs may also mean inadequate assessment for the visual-audio impairments.

Since the majority of the learners were placed in privately special schools parents might not afford the costs. This may consequently reduce the chances of special needs learners to access school education. Most of the learners were placed in schools that dealt with several impairments. Low specialization among the schools may reduce the specialized attention to particular impairments. This situation is more aggravated where learners are placed in mainstream schools with special units where sometimes they are taught with the normal students.
There was low coordination of seminars involving all the stakeholders. This may cause a disadvantage to the learners due to non-holistic assessment. Learners with hearing impairments could not improve their academic welfare due to the low provision of hearing aids by EARCs. Failure of some EARCs to give feedback to MOEST may have contributed to low funding to the centers. This in return adversely affects the availability of the required resources in the centers. Additionally, failure to involve professionals such as doctors during the assessment may have created a gap in the assessment.

The selected EARCs might have failed to function appropriately due to various challenges that face it. Improper handling of disabled learners may have occurred due to inadequate personnel within the centers. Inadequate modern tools might have been available due to inadequate funding. Also, parents might have failed to have their children assessed to an inadequate number of centers or failure to know about EARCs existence. Inadequate and conventional tools might have been as a result of poor collaborations coupled with low and untimely funding.

5.4 Recommendations

1. EARC coordinators should ensure that, as much as SNE teachers are involved in disability assessment, the parent or guardian must be at the center because they have a history of the learner and thus a proper assessment will be made.

2. EARCs and special needs schools should ensure availability of different types of tools and equipment to handle other forms of disabilities other than visual and hearing impairments.
3. The government should ensure adequate public special schools, which are well equipped for EARCs to make referrals since private special schools may be unaffordable.

4. MoE should often train more SNE teachers by organizing seminars and training. The seminars should include other stakeholders such as professionals and donors to ensure that the training is goal-oriented. EARCs should, therefore, embark on strong collaborations with key stakeholders.

5. The government should ensure adequacy in personnel, funding, resources, and functional centers. Overcoming such challenges will improve special needs learners’ education.

5.5 Suggestions for Further Research

The current study aimed at assessing the functions of the EARCs and its challenges among the five counties. There should be a study that assesses parents and teachers perceptions and attitudes on the management of EARCs in Kenya. This should also involve a study of the absorption rate of children with special needs in different placement centers in Kenya. Such a study will give a feedback to the government on how much it should improve the capacity of assisting special needs learners.
REFERENCES


Cullen, K., McAnaney, D., Dolphin, C., Delaney, S., & Stapleton, P. (2012). Research on the provision of Assistive Technology in Ireland and other countries to support independent living across the life cycle. Work Research Center, Dublin.


Rony, M. R. (2017). *Information Communication Technology to support and include Blind students in a school for all: An Interview study of teachers and students’ experiences with inclusion and ICT support to blind students (Master’s thesis)*.


APPENDICIES

APPENDIX I

SNE TEACHERS’ QUESTIONNAIRES

These questioners are used to collect information on evaluation of the functions of Educational Assessment and Resource Centers (EARCs) in some selected counties in Kenya. All the responses given will be treated with confidentiality and only used for research purposes.

County: ___________________________________________________

INSTRUCTIONS: *Tick appropriately.*

a) Gender
   a) Male  [ ] b) Female  [ ]

b) Age
   a) 20 – 30  [ ]
   b) 31 – 40  [ ]
   c) 41 – 50  [ ]
   d) 51 and above  [ ]

c) What is your highest professional qualification?
   a) Certificate (P1)  [ ]
   b) Diploma in special needs  [ ]
   c) BED in special needs  [ ]
   d) MED in special needs  [ ]
   e) PHD in special needs  [ ]
f) None of the above  

d) What is your teaching experience in teaching learners with special needs?

a) Less than 5 years  
b) 6-10 years  
c) 11-15 years  
d) 16 – 20 years  
e) 21 and above  

e) How do you identify learners with special needs in your school?

a) Screening  
b) Educational Assessment and Resource Centers  
c) Testing  
d) Discussions with Parents  
e) Others (Specify) ……………………………………………………………………………………………
…………………………………………………………………………………………

f) Which major tools and equipment are used in the assessment of learners in your school?

a) Audiometers  
b) Snellen charts  

Thank You for the Cooperation
APPENDIX II

QUESTIONNAIRES FOR EARC CO-ORDINATORS

The questionnaires are used to collect data on an evaluation of the functions of EARCs in your County. All responses will be treated with confidentiality and are only meant for the research study.

County: ___________________________________________________

Instructions: Answer the questions appropriately.

1. Gender
   a) Male [ ]  b) Female [ ]

2. Age
   a) 20-34 [ ]  b) 35-40 [ ]  c) 41-45 [ ]  d) 46-50 [ ]  e) Above 50 [ ]

3. What is your academic qualification in Special Needs Education?
   a) Certificate [ ]  b) Diploma [ ]  c) BED [ ]  d) Master’s [ ]  e) PhD [ ]
   F) Other (Specify)…… ……………………………………………………………

4. For how long have you been in the Assessment Center?
   a) 0-5 years [ ]  b) 6-10yrs [ ]  c) 11-20years [ ]  d) 20years and above [ ]

5. Who refers learners with special needs to the assessment centers?
   a) DEO [ ]
   b) Parents [ ]
   c) Teachers [ ]
   d) Community-based representatives [ ]
   e) Medical officers and specialists [ ]
6. Which tools and equipment are used in assessing learners with special needs in the center?
   a) Torch  
   b) Audiometer  
   c) Soft Balls  
   d) Speech kit  
   e) Snellen charts  
   f) Others (specify) .............................................................

7. Who are those professionals that you work with during the assessment of learners with special needs?
   a) District Education Officer  
   b) Therapists (e.g. physiotherapists, vision)  
   c) Counselors  
   d) Medical officers (Nurse, clinician, doctor)  
   e) Teachers (Special, regular)  
   f) Specialists (pediatrician, ophthalmologist, audiologist)  
   g) Social worker  

8. Which major kind of disability do you encounter?
   a) Visual impairment  
   b) Hearing impairment
9. What challenges (if any) do you experience at the Center?

If yes specify

a) ...........................................................................................................

b) ...........................................................................................................

c) ...........................................................................................................

d) ...........................................................................................................

e) ...........................................................................................................

f) ...........................................................................................................

10. Give the suggestions on how the above challenges may be solved

a) ...........................................................................................................

b) ...........................................................................................................

c) ...........................................................................................................

d) ...........................................................................................................

e) ...........................................................................................................

11. Do you seek parental consent before the assessment process?

a) Yes □                  b) No □

If yes, Give reason
...........................................................................................................
...........................................................................................................

12. Who is the major financier to EARCs?

a) Ministry of Education □
b) Parents

c) Teachers

d) Local leaders

e) Others (Specify)

13. How often are the following activities organized in your center?

Scale: Very often=1, Often=2, Sometimes=3, Rarely=4, Never=5

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of audio-visual aids</td>
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<tr>
<td>Co-ordinate seminars</td>
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<tr>
<td>Coordinate evaluation and assessment on schools</td>
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<tr>
<td>Provide hearing aids</td>
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<tr>
<td>Visiting schools to advise teachers on how to identify children</td>
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<tr>
<td>with special needs and do an assessment</td>
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<tr>
<td>Teachers visit assessment centers</td>
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<td></td>
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<tr>
<td>Give feedback to county education officers</td>
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<tr>
<td>Give feedback to MOEST</td>
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<td></td>
<td></td>
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<tr>
<td>Hold seminars with teachers with special need children</td>
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</tbody>
</table>

Thank You for the Cooperation
APPENDIX III

OBSERVATION SCHEDULE

The observation schedule will be used to collect data on an evaluation of Educational Assessment and Resource Centers in selected counties in Kenya.

1. Is the assessor using the right tools and equipment in the assessment process?
   a) Yes □    b) No □

   Tick the ones available
   a) Audiometer □
   b) Snellen chart □
   c) Pegboards □
   d) Soft balls □
   e) Speech kit □

2. How the assessor interacting with the client?
   a) Friendly □    b) Lukewarm □    c) Harsh □

3. Who mentions with special needs to the assessment center?
   a) Regular teacher □
   b) SNE Teacher □
   c) Social worker □
   d) Parent □
   e) Guardian □
4. Who are the personnel involved in the assessment of learners with special needs appropriately.
   a) Doctors
   b) Specialists
   c) Parents
   d) SNE learner
   e) Social worker
   f) Nurse
   g) Social worker

5. What is the state of facilities and equipment in the assessment center?
   a) Poor conditions
   b) Fair
   c) Good
   e) V. good

6. Which challenges are faced by the assessors during the assessment process?
   a) Inadequate facilities
   b) Lack of standardized instruments
   c) Lack of basic assessment equipment
   d) Lack of enabling environment

7. Are parents giving consent for the assessment of their children?
   a) Yes
   b) No
APPENDIX IV

RESEARCH AUTHORIZATION LETTERS

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref. No. NACOSTI/P/18/38485/23645

Date: 18th July, 2018

Emmy Jelagat Ayabei
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Analysis of the functions of educational assessment and resource centres and its implementation in some selected Counties in Kenya” I am pleased to inform you that you have been authorized to undertake research in Baringo, Elgeyo Marakwet, Kakamega, Trans Nzoia and Uasin Gishu Counties for the period ending 18th July, 2019.

You are advised to report to the County Commissioners and the County Directors of Education of the selected Counties before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

Boniface Wanyama
For: Director-General/CEO

Copy to:

The County Commissioners
Selected Counties.

The County Directors of Education
Selected Counties.
THE PRESIDENCY

MINISTRY OF INTERIOR
AND
COORDINATION OF
NATIONAL GOVERNMENT

COUNTY COMMISSIONER'S OFFICE
TRANS NZOIA COUNTY
P.O BOX 11 - 30200
KITALE
8th July, 2018

E-mail: cctransnzoiacounty@yahoo.com
When replying please quote

TNZC/CONF/ED.12/2/VOL.III/(46)

TO WHOM IT MAY CONCERN

RESEARCH AUTHORIZATION

This is to inform you that EMMY JELAGAT AYABEI of Kenyatta University, has been authorized by National Commission for Science, Technology and Innovation to carry out research on “Analysis of the functions of educational assessment and resource centers and its implementation in some selected Counties in Kenya” Trans Nzoia County for the period ending 18th July, 2019.

Please accord her the necessary assistance.

BEATRICE BIKEYO
FOR: COUNTY COMMISSIONER
TRANS NZOIA COUNTY
MINISTRY OF EDUCATION SCIENCE & TECHNOLOGY

REF:WP/GA/29/17/VOL.III/ 7th August, 2018

Emmy Jelagat Ayabei
Kenyatta University
P. O. Box 43844 – 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

The above has been granted permission by National Commission for Science, Technology and Innovation vide their letter Ref: NACOSTI/P/18/38485/23645 dated 18th July, 2018, to carry out research on “Analysis of the functions of educational assessment and resource centers and its implementation in some selected Counties in Kenya Kakamega County among them”, for a period ending 18th July, 2018.

Please accord her any necessary assistance she may require.

FREDRICK M. KIRU
CDE/CEB – SECRETARY
KAKAMEGA COUNTY
MINISTRY OF EDUCATION
State Department of Basic Education

Telegrams: ......................
Telephone: Kitale 054-31653 – 30200
Fax: 054-31109
Email: transnzioaecde@gmail.com
When replying please quote:

County Director of Education,
Trans Ng'aoi,
P.O. Box 2024 – 30200
KITALE.

Date: 8TH August, 2018

Ref. No. TZ/CNT/CDE/R/GEN/I/VOL.I/140

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION - EMMY JELAGAT AYABEI

The above named has authority to carry out research on “Analysis of the functions of educational assessment and resource centres and its implementation in some selected Counties in Kenya” Trans Nzoia County for a period ending 18th, July 2019.

This is therefore to authorize the person to collect data and/or carry out activities related to this particular exercise in Trans-Nzoia County. Whoever may be concerned is requested to co-operate and assist accordingly.

Thank you.

DIXON O. OGONYA
COUNTY DIRECTOR OF EDUCATION
TRANS-NZOIA
OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR & COORDINATION OF NATIONAL
GOVERNMENT

COUNTY COMMISSIONER’S OFFICE,
ELGEYO-MARAKWET COUNTY,
P.O. BOX 200-30700

16th August, 2018

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION
EMMY JELAGAT AYABEI

This is to confirm that the above named has been authorized to carry out a research on “Analysis of the functions of educational assessment and resource centres and its implementation in some selected Counties in Kenya”. The research will be undertaken in Baringo, Elgeyo Marakwet, Kakamega, Trans Nzoia and Uasin Gishu Counties for the period ending 18th July, 2019.

Please accord her necessary assistance.

K. O. MIFWONI
FOR: COUNTY COMMISSIONER
ELGEYO MARAKWET

Cc: Deputy County Commissioners
Elgeyo Marakwet County
TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION – EMMY JELAGAT AYABEI

Following the authorization by the National Commission for Science, Technology and Innovation (NACOSTI) to carry out research in Elgeyo Marakwet County vide Authority letter Ref. No. NCST/P/18/38485/23645 dated 18th July, 2018 you are hereby formally granted authority by this office to proceed with your study on

"Analysis of the functions of education assessment and resource centres and its implementation in some selected counties in Kenya" for a period ending, 18th July, 2019.

This is therefore to authorize the person to collect data and/or carry out activities related to this particular exercise in Elgeyo Marakwet County. Whoever may be concerned is requested to cooperate and assist accordingly.

For County Director of Education,
ELGEYO MARAKWET.

Copy to:
1. The Director General/CEO - NACOSTI
*Please note that the title in this letter only specified this particular county where permission to conduct research was granted*
RE: RESEARCH AUTHORIZATION

This office has received a request from your institution to authorize you to carry out research on “Analysis of the functions of Educational assessment and resource centres and its implementation in some selected counties in Kenya.”

We wish to inform you that the request has been granted until 18th July, 2019. The authorities concerned are therefore requested to give you and your company maximum support.

We take this opportunity to wish you well during this data collection.

SAMUEL K. KIMAIYO
For: COUNTY DIRECTOR OF EDUCATION
UASIN GISU.
APPENDIX VI

RESEARCH PERMIT

THIS IS TO CERTIFY THAT:

MS. EMMY JELAGAT AYABEI of KENYATTA UNIVERSITY, 4829-30100 ELDORET, has been permitted to conduct research in Baringo, Elgeyo-Marakwet, Kakamega, Transnzoia, Uasin-Gishu Counties

on the topic: ANALYSIS OF THE FUNCTIONS OF EDUCATIONAL ASSESSMENT AND RESOURCE CENTRES AND ITS IMPLEMENTATION IN SOME SELECTED COUNTIES IN KENYA.

for the period ending:
18th July, 2019

Applicant's Signature

Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. The Licence is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
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