IMPLEMENTATION OF INDIVIDUALIZED EDUCATION PROGRAMME FOR EFFECTIVE TEACHING OF LEARNERS WITH CEREBRAL PALSY IN TWO SPECIAL PRIMARY SCHOOLS, KISUMU COUNTY, KENYA

BY

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A THESIS SUBMITTED IN PARTIAL 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

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DECLARATION

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

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DEDICATION

This research thesis is dedicated to my daughters Effy and Wendy, sons Liston and Ranny who often reminded me of effective teaching of learners with cerebral palsy. As they grow up and learn further, I hope their lives continue to be touched by effective teaching and they learn the joy of accommodations, modifications and adaptations to persons with disabilities.

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ABBREVIATIONS AND ACRONYMS

ADL	Activities of Daily Living
AYPFCEP	American Youth Policy Forum and Centre on Education Policy
BC MOE	British Columbia Ministry of Education
CNS	Central Nervous System
CP	Cerebral Palsy
HI	Hearing Impairments
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Program
KNCHR	Kenya National Commission on Human Rights
MOE	Ministry of Education
MR	Mental Retardation
PH	Physical Handicaps
SNE	Special Needs Education
SPSS	Statistical Package for Social Sciences
UNESCO	United Nations Educational, Scientific and Cultural Organization

ABSTRACT

The study examined the implementation of IEP for effective teaching of learners with CP in two Special Primary Schools in Kisumu County Kenya. The study was guided by descriptive survey design. Multistage sampling was used which involved: Purposive Sampling to select sub-counties, schools, classes and head teachers. To select teachers and learners, stratified and simple random sampling was used. Sample size was 2 head teachers, 16 teachers teaching learners with CP, and 40 learners with CP. The instruments used were questionnaire, observation schedule and interview schedule. Data was collected by the researcher. The researcher did administration of the instruments in person. Analysis was done following the objectives of the study and research questions. Data presentation was done using tables, pie charts, bar graphs, and descriptive passages. Quantitative data collected was entered into computer spread sheet in a standard format to allow for computations of descriptive statistics using Statistical Package for Social Sciences (SPSS).The descriptive statistic such as percentages and frequency distribution was used to analyze quantitative data. Qualitative data was placed under themes with research objectives and questions; and conclusion made based on trends and patterns of responses. It was established that teachers use accommodations, adaptations, modifications and other instructional approaches. It was noted that most used approaches are task analysis and guided practice. However, it was revealed that teachers are challenged when implementing IEP strategies. They experience pressure of time, overwhelming amount of work in teaching, and inadequate resources and materials for teaching learners with CP. It was established that this has led to, learners repeating grades, dropping out of school, and performing poorly. Based on the study findings and conclusions, it was recommended that teachers fully utilize the resources and skills they have to improve learners' abilities; schools to purchase more teaching and learning resources; more teaching staff to be posted in special primary schools with learners with CP to enhance implementation of IEP. It is hoped that the findings of this study would assist the government and stakeholders in formulating policy that would benefit teachers teaching learners with CP, and learners with CP.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the background to the study, statement of the problem, purpose of the study, objectives, research questions, significance, limitations and delimitations of the study, assumptions, theoretical and conceptual frameworks, and operational definition of terms.

1.1 Background to the Study

Individualized Education Program (IEP) is a document which is developed for a learner with special needs that specifies strategies, services to be provided, and measures for following up achievement. Some learners with special needs may need little adaptations and minimum levels of support; others with severe conditions may need detailed plan for educational modifications, adaptive technologies, or health care plans. The IEP shows the needs of the learner and is either with a few details or detailed (British Columbia Ministry of Education (BC MOE), 2013). Learners with special needs are heterogeneous group and they have varied learning characteristics and patterns. To meet such a wide variety of needs there is need to develop IEP for the learners so as to ensure quality education. Garguilo (2009) reiterates that IEP is concerned with the narrow range of differences accounted for in classroom and the desire to improve the situation. He adds that IEP enables learners to proceed at their own rate and allow for major differences in what and how much is to be learned at a given time and in what standards used in judging

quality of performance. IEP seemingly is appropriate for teaching learners with special needs for better performance.

In America, most teachers believe that low academic performance of learners with disabilities, is inevitable. American Youths Policy Forum and Centre on Education Policy (AYPFCEP) (2002) disputes this and states that educators fail to realize that the majority of these learners, despite their disabilities, are able to meet the same academic and life skill standards as other learners, if they receive appropriate instruction and related services as required under Individual with Disability Education Act (IDEA). IDEA provides that each child should have an IEP, specifying goals for that learner and how attainment of goals will be assessed. The IEP also must specify the degree to which the learner will participate in general education and the special education services to be provided. IEP must specify access to standard general education. AYPFCEP (2002) argues that it is unworthy in education to believe that learners with disabilities cannot and should not be challenged to perform as other learners. It further states that IEP plays important role in meeting learner's grade level standards by including accommodations, and the learner may regress if the services were not availed. In recognition to poor performance, grade repetition and dropout rates amongst learners with special needs, strategies have been put in place in America to avert the issues. These include one year plus policy which has raised the current level highly for IEP goals, services and learners performance. Very important in strategy of IEPs for learners are goals for one year; gap between the learners' enrolled class and actual level of performance, goals express the

expectation of one year progress and a reasonable reduction in the gap; essentially IEP services are reasonably calculated to make learners attain the goals (AYPFCEP, 2002).

Learners with Cerebral Palsy (CP) are not left behind amongst learners with disabilities. According to Hardman, Drew and Eglan (2005), children with CP have experienced damage to the Central Nervous System (CNS) as well as alteration in motor development function. CP is characterized by disorders of involuntary and disorganized movement; and disorder to balance and equilibrium. Movement dysfunction has significance for development and learning. On one hand, sensory dysfunctions affect learning and classroom performance. Learners are either gifted, have normal intelligence, or experience cognitive deficits depending on level of severity. In spite of these conditions experienced by learners with CP IEP strategies support their learning effectively when used by educators. In America IEP has made teaching more effective for learners with CP. This is done by use of principles of universal design which is usable to the learners without need of adaptation or modification; paying attention to the environment for some students may need a quiet space to work without destructions and to allow movement; considering testing accommodation which ensures learners have opportunity to show that they can perform; considering supports such as breaks to relax, teaching learner interpersonal relationships and self- help skills (Eason and Whitbread, 2006).

In South Africa, the use of IEP is stressed for learners with CP as well as learners with other disabilities. Most teachers have succeeded in teaching learners with severe and mild disabilities using IEP. According to Prinsloo (2000), teachers have shown that they are

able to make effective IEPs for their learners. They use IEP for intervention purposes. Teachers support learners with CP by developing their potential optimally through identification of all important manifestations of the learners' problems and teaching principles good to help them achieve optimally.

Uganda as a country with schools for learners with special needs education and learners with CP has experienced great challenge in use of IEP. According to United Nations Education, Scientific and Cultural Organization (UNESCO) (2010), this is attributed to learners intellectual limitations in learning of academic and self help skill difficulties for learners with CP. Modification and adaptation is widely used in IEPs for learners with CP but has not been fruitful in achieving objectives of the IEPs designed.

In Kenya, teachers find it difficult to prepare learners with CP adequately. IEPs for learners with motor difficulties always involve physiotherapists and occupational therapist who are sometimes not found in the schools. Parents are sometimes required to hire them, which is not consistent. This has made IEPs implementation during teaching a challenge to teachers. Learners perform poorly in academics and independent skills which include Activities of Daily Living (ADLs). Ogola (2010) posits that it is important that teachers prepare the learners to be self-reliant; to increase their ability to respond and cope in a flexible manner with change; to develop character, which serves as firm basis for sound judgment and consider decision making and to enter the community as informed and educated citizens who are capable of living and working as independent and productive adults. The study therefore aims at assessing implementation of IEP by

teachers to ensure better performance in academic and independent skills which include ADLs for learners with CP in two special primary schools in Kisumu County.

1.2 Statement of the Problem

It is crucial to note from the background to the study that IEP has successfully been used in America and South Africa to effectively teach learners with CP among other learners with special needs. In Kenya, the government uses a lot of money in special needs education. According to Kenya National Commission on Human Rights (KNCHR) (2014), education still remains to be a dream to many learners with disabilities. It established that educational outcomes for learners with disabilities remained very poor. It attributed the poor performance to difficulties experienced by teachers in implementing curriculum demands especially where learners required IEP. Most learners with CP in special schools are dependent instead of being self- reliant as required by objectives of Special Needs Education (SNE). The issue of not being self-reliant raises concern amongst parents and policy makers about the extent to which IEPs have assisted teachers to educate learners with CP at school level in academics and independent skills such as ADLs taught in special classes. This is an indicator that little is being achieved even though IEP might be in use. According to Browder, Wakeman, and Flower (2009), most learners with CP dropout of school, they relate dropping out and repeating grades to poor performance in areas of needs identified. If learners with CP kept on performing poorly in their schools then the parents and the community would not see the need of taking such children to school and this could lead to school low enrolment, when parents decide to be with their children at home. It would also be difficult for Kenya to achieve equality for all

in national development. Therefore the study sought to assess IEP strategies used by teachers and their influence on good performance of learners with CP which help to determine effective teaching in special schools.

1.3 The Purpose of the Study

The purpose of the study was to examine the implementation of IEP for effective teaching of learners with CP in two special primary schools in Kisumu County Kenya.

1.4. Objectives of the Study

The specific objectives of the study were to:

i. Determine accommodations employed by teachers when using IEP for teaching learners with CP in two special primary schools in Kisumu County.
ii. Find out modifications done by teacher when implementing curriculum in teaching of learners with CP in two special primary schools in Kisumu County.
iii. Investigate adaptations to teaching and learning materials by teachers when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County
iv. Identify instructional approaches used by teachers in implementation of IEP when teaching learners with CP in two special primary schools in Kisumu County.
v. Establish challenges teachers face and intervention measures teachers take when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County

1.5. Research Questions

The study sought to answer the following questions:

i. What accommodations are employed by teachers when using IEP for teaching learners with CP in two special primary schools in Kisumu County?

ii. What modifications are done by teachers when implementing curriculum in teaching of learners with CP in two special primary schools in Kisumu County?

iii. What adaptations do teachers do to teaching and learning materials when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County?

iv. Which instructional approaches are used by teachers in implementation of IEP when teaching learners with CP in two special primary schools in Kisumu County?

v. What challenges do teachers face and intervention measures taken by teachers when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County?

1.6 Significance of the Study

The study had both empirical and theoretical application for special schools for learners with physical impairments in Kenya. It hoped to offer practical knowledge on IEP strategies in teaching of learners with CP. Information gathered may assist teachers in special schools to employ appropriate instructional approaches when using IEP. School heads may also benefit by making sure that other related services for learners with CP are a priority for the children to benefit from education offered in their schools. The

communities where learners with CP come from may benefit when their children are taught appropriately to be self-reliant and able to carter for their Activities of Daily Living (ADL) needs without much support. They may also provide for their children's needs in special schools. The study may assist Ministry of Education (MOE) in its policy formulation for success of teaching and learning in special primary schools.

1.7. Limitations and Delimitations of the Study

1.7.1 Limitations of the Study

The survey for this study was conducted through visits in two institutions, which are Nyakach and Kisumu East Sub-Counties in Kisumu County. Due to teachers' strike in Kenya, there was limited time frame for the study; it was unfeasible for the researcher to go to the school in Kisumu East Sub- County as planned. This did not affect the findings of the study. Generally the researcher received informative, open and receptive respondents in the study schools despite the aftermath of the teachers' strike.

1.7.2 Delimitations of the Study

The study confined itself to learners with CP and teachers teaching them in public special primary schools for learners with Physical Handicaps (PH) where they are found in Kisumu County. This was done because the learners are the consumers and their teachers are the specialists in implementation of IEP strategies. Although learners with CP and PH are beneficiaries in the schools, learners with CP were included, as they were minority in the study schools, there is also little information on teaching of learners with CP in Kisumu County. The study did not include learners from classes two, five, six, and eight

because majority of learners were established to be PH and not CP. Data collected was limited to special classes, classes one, three, four and seven which had large numbers of learners with CP.

1.8. Assumptions of the Study

i. Two special primary schools for learners with PH in Kisumu County had inadequate number of teachers to implement IEPs when teaching learners with CP
ii. There were certain factors that have hindered implementation of IEPs for effective teaching of learners with CP in two special primary schools for learners with PH in Kisumu County.

1.9. Theoretical and Conceptual Framework

1.9.1 Theoretical Framework

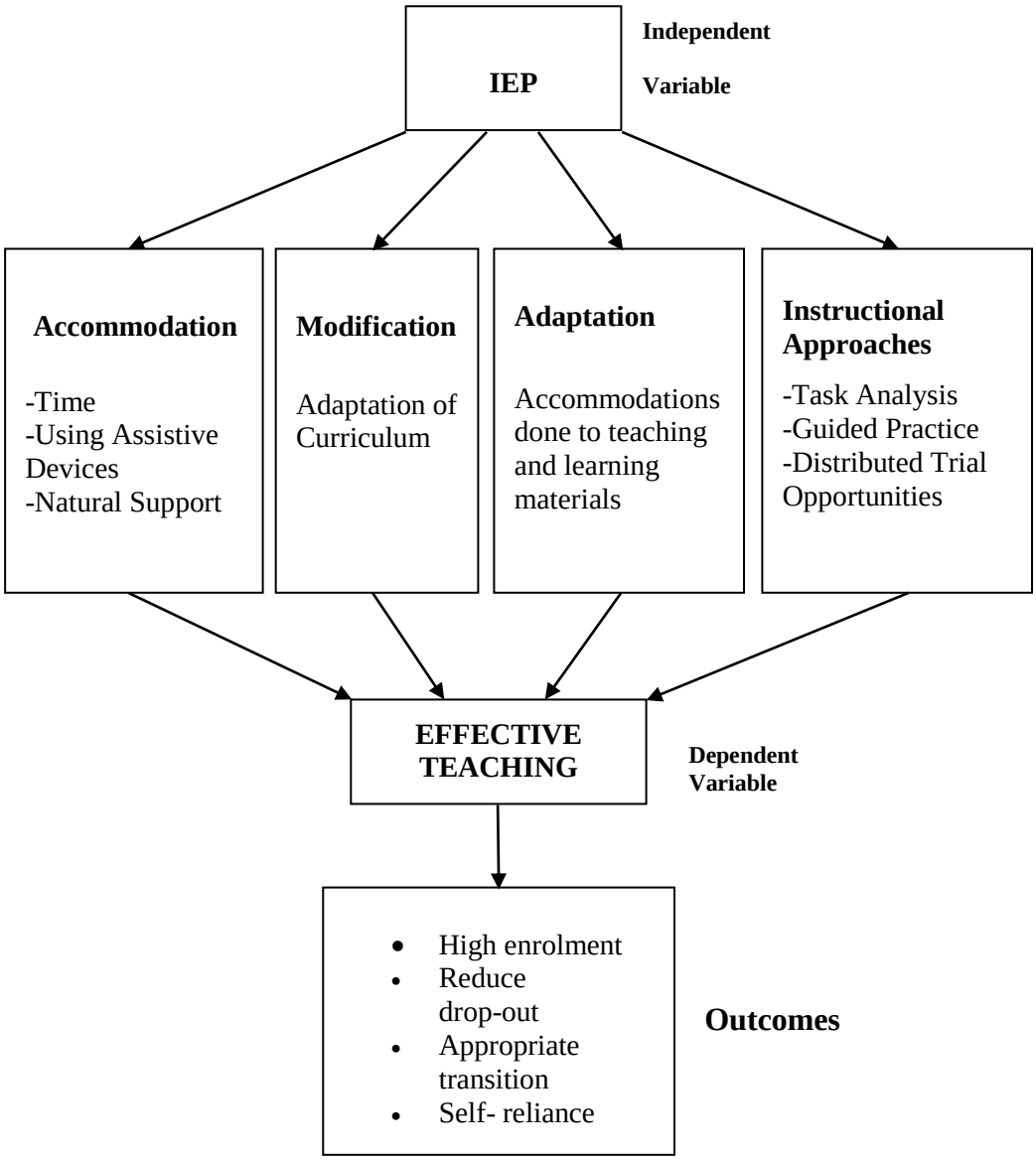
The study was guided by Vygotsky's theory of Zone of Proximal Development (ZPD) (1978). The theory provides the framework for implementation of IEP for effective teaching of learners with CP. In this theory, learning is a process through the ZPD, with the word 'zone' conceived as the space between which a learner cannot perform alone and which she/he can do with the help of teachers (Pettigrew and Akhurst, 1999). In this case, the learner with CP will be moved from his/ her present level of performance to another higher level with the help of the teacher using IEP to teach effectively. According to Rowland (2006), teaching takes place most effectively when support is given at those particular points in the ZPD where the learner needs support and there is distinction in what the learners have acquired and their level of performance in the process of learning.

From the foregoing and in the context of this study the person to set goal for effective teaching is the teacher by identifying the needs of the learner with CP established in the IEP. Thus Vygotsky's theory of ZPD requires that the space between which the learner cannot perform alone can be identified and IEP used to give support by accommodation, modification, adaptation and effective instructional approaches. Teachers should therefore examine the needs of learners with CP and offer effective teaching using IEP.

To successfully operationalize ZPD theory this study was guided by conceptual representation in figure 1.1.

1.9.2 Conceptual Framework

The conceptual framework shows interrelationship between dependent variable and independent variables of the study. The variables of IEP include accommodations, modifications, adaptations and instructional approaches which are necessary for the variable of effective teaching. When the IEP is implemented, there will be effective teaching which will result in high enrollment, reduced drop-out, appropriate transition, and self-reliance of learners with CP.



Source: The researcher (2015)

Figure 1.1: Conceptual representation of implementation of IEP for effective teaching of learners with CP

1.10. Operational Definition of Terms

Accommodation: Process to facilitate representation, expression and engagement that are necessary to support learners with CP to perform optimally.

Adaptation: These are accommodations made on materials to support learners with CP so that they can achieve the learning outcomes of subjects and demonstrate mastery of concepts

Cerebral Palsy: A disorder of the brain, which occur as a result of brain damage affecting movement and posture.

Curriculum: Is systematically organized, well programmed learning outcomes by level of learning.

Effective Teaching: Signifies the growing on learner outcome measures and growing acceptance of performing learners.

Individualized Educational Program: A personal program plan that outline learning expectations, curriculum and teaching approaches for learners with CP.

Learning Outcomes: Acquired skills, knowledge and attitudes that are expected as a result of the teaching and learning activities in the curriculum.

Modifications: Adaptation made to what is being taught.

Teaching: A process of talking, telling, explaining, showing, illustrating and demonstrating skills, content or facts.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter presented a review of literature related to the study outlined under the following sub-headings derived from the objectives of the study: accommodations employed by teachers when using IEP, modifications done by teachers when implementing curriculum, adaptations done to teaching and learning materials, instructional approaches used by teachers, challenges teachers face and intervention measures they take, and a summary of literature reviewed.

2.1. Accommodations Employed by Teachers when Using IEP

This part reviewed accommodations employed by teachers when teaching learners using IEP which included: support provided to learners and individually based accommodation.

2.1.1. Supports Provided to Learners

According to Turnbull, Turnbull, and Wemeyer (2010), accommodations are supports provided to learners to enable them access curriculum. A learner with mild CP achieves success in general education curriculum class with accommodations that include having someone read the problem to him/her and extending time allowed for completing tasks. Using assistive device to scan test, write among others. Accommodations can also include preferential seating, reduction in workload among others for learners with CP. One way to accommodate learners with CP in general education curriculum is to provide natural supports. Natural supports are supports and assistance provided by individuals

and technologies found in the learning environment that leads to achievement of goals. Learners with CP should be provided with appropriate accommodations in order to learn as their classmates are expected to learn. It is the task of the teacher to ensure that this is perfectly and appropriately done.

Helwig and Tindal (2003) conducted a randomly assigned study of the efficacy of teachers on accommodations to learners for mathematics with 973 in regular education and 245 learners who received special education services at the basic and middle school levels. The accommodation tested reading aloud and questions to learners to respond to during assessment. It was established that teachers failed in predicting which learners would benefit from the accommodation, casting serious doubt on the accommodation process. Their study confirmed prior research that found that teachers are not accurate in their accommodations. According to them there is dismal connection between accommodation and instructions given to learners in classroom. On the other hand, Schulte, Elliott, and Kratochwill (2004) did a study on the effects of accommodations on mathematics test-scores of a sample of 86 fourth grade learners, including 43 learners with disabilities; they established that not all learners gained from testing accommodations. They established that, approximately one third of learners with and without disabilities in the study had lower scores in the accommodated condition than non-accommodated condition. According to them, this is linked to lack of prior teacher knowledge on accommodation and testing information. The increase could be noted if teachers have prior accommodation and testing information.

2.1.2. Individually Based Accommodation

Individually based accommodation is crucial for learners with CP in education curriculum because it is organized and delivered with the needs of learners in mind. Bigge, Heller, and Best (2010) posit that for learners to access curriculum, individually based accommodations are crucial for learners in accessing the curriculum. They further add that curriculum itself remains the same in content, outcomes, or level of complexity to meet the challenges of learners with disabilities – the learners are required to attain the same results and acquire the same standards as their non-disabled peers, additional accommodations required. Learners with CP experience a lot of motor difficulties hence their accommodations should be well planned. According to Turnbull et al (2010), the intended general curriculum is typically presented through goals, standards and learners learning outcomes. Using the intended general education curriculum as a starting point ensures that learners with CP are provided opportunities to improve in the regular education curriculum. Focus on regular education also ensures that curricular goals for learners with CP will be consistent, to the maximum extent appropriate, with what is expected of typical learners.

However, educators may establish that some learners with disabilities are unable to meet the class curriculum expectations of the regular education curriculum or massive intervention. Such learners may need changes to what is expected of them to learn. In this way, accommodations may involve bypassing learners' learning needs by reinforcing them to use alternative learning strategies, making an adjustment in classroom teaching or organization, and teaching learners basic or independent learning skills. Bypassing

allow learners to gain access to school curriculum in alternative ways. Bypassing should encourage learner independence (Sethosa, 2001). It is essential for IEP teams to begin with the regular education curriculum and align IEP goals with the general education learner learning outcomes.

According to South Dakota Department of Education (2013), alignment is significant because if IEP goals are aligned with the general education curriculum, there is greater assurance that IEP: will reflect long- term planning; support learners access to the general education curriculum and learning environment; ease communication between teachers and learners when discussing learning outcomes; provide a more consistent curricular map for learners with CP. Learners with CP can participate in an array of general education curriculum elements when provided appropriate accommodation. Accommodations do not modify what the child is to know or do but rather, support access to the curriculum (Bigge et al, 2010).

Planning and preparation is important in order to carryout accommodations, and it is necessary that teachers ensure learners with CP utilize the accommodations. According to Wolery (2000), accommodation may be new to a learner, hence orientation and instruction will be crucial during teaching accommodation. He adds that initially learners may need a prompt to remember how to carry on with accommodation. Learners will use the accommodation without much support as they become more independent without troubles. Learners may also need support by generalizing or transferring the use of the accommodation to new environment. The importance of any accommodation should be

measured in terms of its effect on the performance and attitude of the learner with disability (South Dakota Department of Education, 2013).

2.2. Modifications Done by Teachers When Implementing Curriculum

This part reviewed modifications done by teacher when implementing curriculum for learners with CP. The parts reviewed were, modification as a strategy where adaptation is done to what is being taught and curriculum modification approaches.

2.2.1. Modification as a Strategy Where Adaptation is Done to What is Taught

Modification is another strategy where adaptation is done to what is being taught. According to Turnbull, Turnbull, and Wemeyer (2010), to deliver curriculum modifications is to employ multilevel curriculum approach in which learners work in the same curricular area, but curricular outcomes are differently modified for learners with disabilities. They add that another curricular delivery approach, curricular overlapping, also modifies the curriculum for learners with CP by having learners learn side by side, working towards different learning outcomes for instance, others on eye contact and others on fine-motor skills. In this case, the curriculum has been changed, or modified, with learners IEPs focusing on different knowledge and working skills and working toward different outcomes. Modifications change what learners are learning and represent specially designed instruction captured through IEP goals (Turnbull et al, 2010). In the long run it is a challenge to learners with CP to meet the expected standards in the general education curriculum outcomes. Teachers as well are challenged to appropriately cater for each and every learner within stipulated time.

2.2.2. Curriculum Modification Approaches

When selecting general education curriculum with modifications, it is appropriate to determine whether the curriculum needs to be modified for particular learners and when, selecting and applying an approach for modifying the curriculum. According to Bigge et al (2010), there are three curriculum modification approaches which may be most relevant for learners with CP among other learners with health, physical or multiple disabilities, they include: curricular analysis; addition of curriculum in thinking and problem solving skills; addition of curriculum in learning strategies and study skills. They further state that teachers can use a combination of these curricular modification approaches to meet individual learner needs.

Addition of curriculum in thinking and problem solving skills is crucial for many learners with CP, inclusion of thinking and problem- solving skills into the curriculum can significantly increase the likelihood of their accessing the general education curriculum and gaining skills and understandings. Wolery (2000) concured that identifying curriculum in strategies on how to think about content and approach problems may provide the scaffolding learners need to achieve success in general education curriculum, including that at a modified level of complexity. On the other hand, he postulates that explicit targeting of thinking and problem- solving skills modifies the curriculum provided to typical peers because this curricular content is in addition to what typical learners are taught. It may be that typical learners gain these skills through day- to- day experiences or teacher modeling, but for learners with CP, explicit and systematic curricular are needed in order for them to gain and apply these skills in meaningful ways.

Studies by South Dakota Department of Education (2013) pointed out that addition of curriculum in learning strategies and study skills for some learners can make great gains in the general education curriculum if provided specially designed curricular in learning strategies and study skill. Addition of learning strategies and study skills to the general education curriculum serves to modify the curriculum that is provided to regular learners and can promote learners' strength to access education curriculum. Bigge et al (2010) reiterated that for learners with CP study skills may be identified as a special curriculum designed to support success in the general education classroom. The study skills curriculum may include organizational skills, note taking skills, test- taking skills, and use of resources.

On the other hand, according to Sethosa (2001) curricular analysis is where a teacher is supposed to take part of the curriculum as it is proposed; next, to identify the key understandings represented; and last, to determine if these key understandings need to be modified to reflect the learning needs and goals of a learner with CP. This analysis can occur in many ways, including: analyzing and modifying course syllabi or course outlines, adjusting proficiency levels learners are expected to achieve to demonstrate competence and achievement, and to identify rudiments and teaching to mastery of these rudiments.

For a learner with CP to be self – reliant and to acquire academic and non- academic skills, it is imperative that curriculum modification approaches be practiced where appropriate so as to make the learner benefit just as the peers who are non-disabled.

2.3. Adaptations Done to Teaching and Learning Materials

Adaptations refer to accommodations made on materials for teaching and learning to suit the needs of learners with disabilities. For learners with CP adaptations and instructions are crucial in writing, science, social studies, mathematics, literacy and language art, and personal independence. Learners with CP may also need task adaptations in first stages of skill acquisition. There is need for teachers to fade adaptations for learners to master targeted skills. Always learners who do not complete required scheduled curriculum will lag behind their peers (Turnbull et al, 2010).

2.3.1. Modified Means of Communication and Task Performance

Some learners with CP require alternative means of communication and task performance in order to participate and communicate in school experiences. Gargiulo (2009) contends that when speech is affected, learner's performance can be severely impaired. Questions may go unresponded to, and teachers may have problems in understanding learners' answers. Learners will typically use augmentative communication devices, but unless learners can spell, no augmentative communication device will have all the vocabulary needed to answer or ask questions. Also, it can take some time for learners to learn to use their devices, during which time they will lose opportunities to communicate with others. On one hand, a learner with CP whose disabilities limit the movement of arm, hands, and fingers may not be able to carry out school activities such as writing, manipulating materials without appropriate modifications. Even modifications and performance may be affected. Learner who can only write using a computer with adapted key board may only

be able to write fifteen words a minute and cannot write for long period of time because of fatigue (Gargiulo, 2009).

However, Bigge et al (2010) suggest five areas as modified communication and task performance for learners with disabilities, which focus on learners with CP. They include: modified physical task performance, operation of assistive technology, augmentative and alternative communication, and modified means of information acquisition and management. Task performance refers to how learners complete tasks. There are six means of physical task performance learners are commonly required to use in school subjects. They include- gesturing, speaking, drawing, handwriting, showing dexterity, and mobilizing (Bigge et al, 2010).

Assistive technologies are used to augment a sense of movement, circumvent sense of movement, provide alternatives or adaptation for means of communication and information expressed and received, and provide means of performance in learning demonstrations and varieties of educational life activities. According to Gargiulo (2009) there are three areas of assistive technology curriculum. Learners using devices will most likely need curriculum and instruction in each of these areas. They include- access, operation and functional use. Curriculum access, operation and use of assistive technology can facilitate the participation of students with CP across school, family, and community environments. The degree of learners' as users may depend on the amount and quality of the curriculum that they receive to learn and perfect their knowledge and skills in access operation and functional use (Bricker, 2001).

Learners with severe CP often have speech that is not understandable. Bigge et al (2010) observed that augmentative communication device can open up the learners' world by allowing others to understand him/her. They add that it is crucial for teachers to realize how the learner communicates and how they should present questions. Augmentative communication devices for example may range from a note book with pictures to electronic devices, with voice output, and may be used along with various sounds or words that the learner can say. Teachers may be instructed to ask questions giving answers in multiple choice formats when calling on these learners.

Learners with movement impairments benefit from specialized procedures, materials and assistive technologies to acquire information in school. Turnbull et al (2010) concur that some learners may need physical guidance as they attempt to gain information through touch and movement in first hand experiences. Some may need learning materials strategically placed for easy access. Book holders, lesson presented in enlarged print, outlines of chapters among others. Computers usual or modified means of physical operation provide source of information when independence in handling reference books is not possible

Teachers need to adapt and use the adapted devices to support learners' access and participation in school curriculum, and greater independence in all life activities. Learners require specialized curriculum that specifies the knowledge and skills they need to access, operate, and functionally use these tools. Learners may also participate in curriculum in modified means of communication and task performance, on a daily basis.

According to Pellegrino (2007), learners who receive modifications have cognitive challenges that are so severe that the curriculum expectations in regular education are inappropriate. He points out that instructional modifications involve teaching less content and teaching different content. He recommends that it is crucial to use instructional modifications for learners with severe disabilities. The instructional modifications he argues, learners do not benefit in knowledge skills, and concepts in subjects, and leave gaps in learning that can interfere with school standards which can disadvantage school years and beyond for learners. This can lead to distortion of the curriculum.

According to Gargiulo (2009), teachers teaching learners with CP are challenged when expected to use the above IEP strategies for effective teaching. Teachers teaching learners with CP need a lot of time than those teaching non-disabled learners to fully cover the general education curriculum. The use of natural support for learners with CP may lead to learned helplessness among learners. Accommodations, modifications, and adaptations need to be done to both general education curriculum and independent skills so as to remove disability related barriers to ensure that learners with CP receive the same access to learning and demonstrate the same knowledge and skills as disabled peers. The accommodations, modifications, and adaptations must be provided at frequency, duration and location specified by the IEP. These are not optional or delivered at the direction of the teacher. They must be written specific enough so that everyone responsible for implementing the learner's program will know exactly what and how to implement them. Teachers at times may not fully provide what the child needs as far as instructional program demands hence ineffective teaching (Turnbull et al, 2010).

2.4 Instructional Approaches Used by Teachers in Implementation of IEP

It is necessary to address IEP goals with methods that are effective for individual learners with disabilities, curriculum and instructional adaptations. To promote generalization of goals, instruction in environments where this is most likely to effectively occur is needed, Bricker (2001), explains that to create better generalization possibilities it is to embed IEP goals in instruction. Embedding learners' goals and objectives in routine and play activities should be a generalized approach adopted by all teachers. It clearly shows that learners with CP are given chance to practice what has been taught which included activity in a manner that enlarges, adapts the activity while retaining meaningful and interesting to learners. Structural embedded instruction methods promote leveling of intervention, beginning with appropriate setting as the foundation, followed by implementing environmental modifications and adaptations, creating trial opportunities for learners to practice targeted objectives during routine activities, and using explicit discrete trial naturalistic instructional techniques when necessary to provide learners with enough instructional trial (Potter, 2013). However, IEP must be educationally relevant, it should not duplicate the general education curriculum in every content area and everything the learner is expected to learn.

In their work, Mercy and Bricker (2007) contended that learners with disabilities did not generalize the responses to home and classroom that they had attained in a special session, and therefore methods that promoted greater generalization were needed. According to them one way to create better generalization possibilities is to embed learning goals in classroom instruction and assessment. In their view embedded teaching

should be the same compared to existing routines as the context for teaching, with the teacher giving learning opportunities into the existing flow of the activity. On the other hand they add that embedded teaching should involve explicit instruction on identified targeted objectives into activities, focusing on learner practices within common classroom activities. Implementation of IEP goals should not restrict the learner's participation in classroom tasks. Implementation should occur within the context of the existing classroom activities and routines (Meier, 2007). It should describe the supports needed toward achieving learning standards established for all learners and address a learner's other disability needs.

Teachers need to determine which learners possess a knowledge base in a particular content area and which learners would benefit from additional instruction. According to Meier (2007), to assist in this determination and provide instruction that most closely matches the needs of the learners, task analysis is an important approach. Teachers who educate individuals with CP face challenges with learners whose greatest training needs are created by motor impairment. Bigge, Heller, and Best (2010) assert that training needs of individuals with cognitive disabilities are often more focused on discrimination skills. The major question is where should teachers proceed with learners whose abilities to interact with or operate on the environment motorically are impaired? How can teachers differentiate motor from cognitive impairments? In regard to effective teaching of these learners, task analysis is endorsed as the approach which involves other approaches. Task analysis is based on the notion that learning is cumulative; it is compatible with curricular sequences frequently found in grade-level texts. It performs

the additional function of providing a means whereby teachers examine a skill area within a sequence-based text and break that skill into sub skills (Meier, 2007). However, learners with CP frequently experience difficulty in curricular and extracurricular activities because their motor impairments prevent them from exhibiting the necessary control and speed for performing activities in usual ways (Bigge, et al, 2010). When these difficulties are not identified and modifications are not made, learners are unable to demonstrate what they know and can do.

Task analysis is a helpful strategy when observing an individual attempting a functional task in natural situation but experiencing difficulty. Observers are able to analyze what parts, or steps pose the difficulties through noting which subtasks were performed successfully and which were not (Bigge et al, 2010). Once observers isolate subtasks and designate those performed and those not performed, unaccomplished subtasks can be targeted for future learning as temporary target tasks. However, there is a risk that assumptions will be made about learners' potential to comprehend and complete task based on what they can perform without modification. Bigge et al (2010) noted that learners with CP may not be assigned more-complex tasks, on the assumption that what they cannot perform they cannot comprehend hence loss of academic knowledge and skills. Another danger arises when teachers solve this situation by relegating the learner with CP to role of observer.

In considering relationship between IEP goals and effective teaching to reach these goals, Meier (2007) in his study examined differences in learning possible when using

distributed instructional trial in inclusive classrooms and massed instructional trial in self-contained classrooms. Special education teachers were able to implement the embedded instructional strategy. The strategies were effective, the efficiency of distributed and massed trial differed by learners. It is likely that environments in which IEP goals are embedded could have similar unforeseen positive results. He concluded that although embedded instruction allow learners to participate more fully in general education curriculum under both trial distribution schedules, embedding within 30 minutes schedule is more effective than embedding within 120 minutes schedule. However, for learners with CP more so those with motor impairment are greatly challenged towards this end. It is because of the identified gaps that the study sought to investigate the instructional approaches used by teachers in implementation of IEP when teaching learners with CP in special primary schools in Kisumu County.

2.5 Challenges Teachers Face and Intervention Measures

This section reviews challenges teachers face when implementing IEP and intervention measures to challenges faced by teachers when implementing IEP. The areas reviewed entailed teacher related factors and learner related factors, working close with the learners, and bridging the gap between IEP and implementation.

2.5.1. Teacher Related Factors

A number of scholars have carried out studies related to the challenges faced by teachers when implementing IEP strategies for learners with disabilities. Goldstein and Behauniak (2010) posit that learners with CP exhibit severe processing deficits and require more

time and preparation. Teachers feel increased pressure resulting from time spent covering the curriculum (Courtade, Spooner, and Jimenez, 2012). Professional development, instructional strategies and materials in IEP to teach learners with significant cognitive disabilities is effective to offer learners a complete educational experience. However, according to Browder et al (2009), some learners who exhibit extreme life skills deficits, academics are completely omitted from IEP. They associate this to poor performance of learners with lack of effective systematic teaching. A study in Kenya by KNCHR (2014) affirms that due to understaffing, the implementation of IEP was problematic. It argued that placement of teachers was a contributing factor to understaffing in special schools. It observed that most of the times, trained teachers were posted to regular schools. Even so, they lamented that untrained teachers in SNE were posted to the schools providing education for learners with such needs. It is quite unpleasant especially during this time that we have a number of teachers who graduate from Kenya Institute of Special Education (KISE), Maseno and Kenyatta Universities specialized in different areas in SNE. Such teachers can be provided opportunity to teach in special schools of their areas of specialization to curb the understaffing.

Other barriers to implementation of practices are inadequate materials, gaps in teacher way of instruction, teacher limited understanding of practice or forgetting (Hardman et al, 2005). This is in tandem with the KNCHR (2007) assertion that teacher training and qualifications are important in learning to a learner education. It notes that where teachers are not qualified, the right to a learner's education is compromised. In addition it recommends that teacher-learner ratio in SNE needs be implemented so that learners with

SNE receive the appropriate teacher attention and quality education. This can only be achieved by recruitment of more teachers trained in SNE.

In teaching perspective, many factors affect the use of empirical studies in planning and implementation of proved scientific practices in classroom. Sparks (1988) established that beliefs, self-efficacy, attitudes, and perceptions of teachers had effect on how a teacher used new strategies. Teachers who face challenges during implementation of evidence-based practices will often revert to their traditional, comfortable practices (Lieberman, 2000). It is therefore crucial that teachers have information they need to make good decisions on effective teaching of learners with CP. British Columbia MOE (2013) however, states that IEP for a learner reflects the commitment of the school board and the principal to provide special education programming and services that are needed to meet the educational goals of learner. British Columbia MOE (2013) farther add that principal of a learner's school is mandated to ensure compliance with the needs described in the IEP for the development and implementation of a learner's IEP. However, a study in Kenya by KNCHR (2007) established that many head teachers and school administrators had no knowledge in SNE, making it difficult for them to manage education for learners with SNE. It recommended that they should, on a continuing basis, be sensitized on SNE. It was felt that there are many institutions offering SNE that they can join for in-service courses which take three months. According to Meier (2007), performance may be affected by an ineffective learning environment or negative attitudes toward the learner. An ineffective learning environment is direct result of the way the teacher sets up the teaching and learning situation and interacts with the learners.

Learners with CP typically need several modifications in order to learn. When teachers are not responsive to these needs, they will do poorly in class (Silberman and Sacks, 2000).

2.5.2. Learner Related Factors

Learners with CP use standard prints, graphics, or verbal speech in instruction and assessment. To Thompson (2005), instruction during presentation assists learners to read and listen to lessons and discussions; these also enable them to understand abstract symbols, concepts and ideas. He gives examples such as sticking materials on working surface for them not to move in case of learners with fine motor difficulties; positioning tools such as special tilt-top desk, bookstand, or paper holders. On the other hand, learners typically respond by verbal expression, pen and paper among other expression. According to Luke and Schwartz (2007), response allows learners to use variety of ways to complete class tasks. Learners with difficulty in verbal communication due to sensory impairments and fine motor need assistive technology devices. This shows that learners with CP need response supports to enhance their normal ways of responding. However, Luke and Schwartz (2007) noted that most learners with CP have problems in responding to assignments and assessments due to difficulties with motor and poor foundational skills. Learners with CP who write illegibly may have difficulties with letter formation, letter size, letter and word spacing, or writing on or between the lines. The difficulties may relate to postural control, fine motor impairments, visual perception issues, or attention difficulties (Marty, 2010). Teachers teaching learners with CP need to

collaborate with other professionals on how to select and use appropriate equipment as spelt out in the IEP.

Learners with CP need setting accommodations to address movement issues, behavior modification, and problems with arrangement to create space for materials and use. Tomlinson (2007) however, asserts that learners, who get some kinds of accommodations that might destruct other learners, may also need setting accommodations. To him learners with PH need barrier free environment, specialized equipment; preferential seating, study carrels or specialized lighting.

Marty (2010) observes that learners with CP may need scheduling accommodations to avert effort issues, performance rate, attention rate and time management. Scheduling accommodation if well provided to learners with CP they would access the general curriculum. Learners with CP who are slow may as well need schedule accommodations. Some learners with CP perform their tasks when under less pressure of a strict schedule. Other may need prolonged time due to their being slow in information processing. Learners with CP need extra time to use accommodations. Schedule adjustment may also be required for learners on medical support that affect their ability to stay attentive (Zabala, 2005). It is important that teachers allow the instruction or assessment to occur at a particular time of day, day of the week, or for certain number of days. However, Marty (2010) claims that challenging tasks present problems to learners who have difficulty attending to more than one task at a time. To him learners who are easily

destructed fail to take given instructions and get mixed up. He adds that they withdraw and forget to attend to tasks.

2.5.3. Working close with the learners

Teachers are the persons always close to the learners, and have the knowledge of each learner's abilities. It is the work of the teacher to prepare approaches appropriate to enhance his/her efficiency in teaching. Macy and Bricker (2007) address embedding social skills expressed in IEP goals. They state that embedding opportunities for social skills practice can make education environments more successful options for learners with CP. Generally task analyses are developed so that the order of instruction is in logical order from top to bottom or first to last or the other way round. At times, depending on the individual situation of the learner, instruction may be given in a different order (Meier, 2007).

Task analysis is a tool that can be used in different theoretical approaches. It is a basic strategy that teachers use regardless of their theoretical positions about instruction, assessment, and curriculum for learners with CP. To employ this, Meier (2007) noted that there are two kinds of assistance that teachers can employ when teaching learners with CP. The two kinds of assistance are prompting and shaping. Prompting is where teachers and others provide services to individuals with CP using a variety of techniques which include verbal instructions, modeling, gestures, visual cue and physical assistance. Different kinds of assistance can be augmented with the strategy of shaping. Shaping on the other hand, is the technique of accepting behavior, that are only approximations to the

desired behavior, then gradually requiring behaviors that are closer to a desired outcome. In support, benefits of embedding as described by Mercy and Bricker (2007) include adapting rather than attempting to replace curriculum in general education environments, the ability to implement goal instruction without additional staff, the idea that learning chances for objectives should be achievable in classroom activities and areas of learning could be used to support learners develop many different types of functional, meaningful skills.

Eason and Whitbread (2006) posit that teachers should consider testing accommodation to ensure learners have a chance to show that they know. Successful accommodation outcomes results from IEP implementation and validated program practices. Conclusively BC MOE (2013) gives direction that evaluation in this case provides productive information to a teacher on how to teach. In this study therefore the researcher will find out intervention measures put in place by teachers when implementing IEP for learners with CP.

2.5.4. Bridging the Gap between IEP and Implementation

There is a great gap between IEP and implementation at school and home. On that note, it is important to consider the learner's interest and motivators. Teachers learn how the child will most likely be comfortable with IEP strategies when motivators are identified. Teachers determine appropriate time for instruction in the classroom daily schedule to implement the strategies (Bricker, 2001). When teachers include criteria for success, they should be sufficiently specific without being complicated. Complicated criterion may

disempower a teacher. Silberman and Sacks (2000) suggest that practices and activities are identified in which to embed methods; teachers may think they need to disrupt their schedule or daily routines to address goals and objectives with a leaner. However, Eason and Whitbread (2006) posit that teachers should suggest strategies that are easily incorporated within the natural routines of a learner and should provide examples of different activities using the strategy. As teachers plan strategies, they should review the leaner's daily routines and activities and consider within which circumstances each objective might fit.

Collaboration between teachers and family members will help a teacher to identify routines in which to embed instruction hence initiate conversations about natural learning opportunities. According to Bricker (2001), teachers and learners' family members engage in many scientific based education methods without consulting specialist. However, before implementing new strategies, teachers should identify strategies already in place. Environmental modifications are needed to help the learner succeed. Providing Concrete examples and modeling the strategy increases the likelihood that all involved are comfortable using the strategy (Courtade et al, 2012). This may increase the probability of instruction procedure. Teaching others how to implement intervention strategies is not enough to ensure effective teaching.

Even so, research on testing and accommodations for learners with CP is very limited, upcoming practices may support teachers to improve outcomes for learners with CP. Notary-Syverson and Schuster (1995) in their study reported that in America the

Charlotte- Mecklenburg, National Council school district asked all special education teachers to review the placement of learners with disabilities in alternate assessments to determine if they could take standard assessments. Following a complete review, the district discovered that twenty seven percent of the learners who had been directed to take alternative assessments were successful in taking the regular assessment, some with accommodations. The district assistant superintendent indicated that they were able to make these determinations because teachers used learners' assessment data on regular basis, in some cases, every six to seven days to manage their instruction and learning. To overcome the burdens of implementation teachers as well should demonstrate both the general value of the practice and it's potential for improving learners' performance on high stakes tests; and assuring the feasibility and fit of the practice in the classroom. Gargiulo (2009) in support adds that teachers should be provided with sufficient mentoring and feedback; maintaining open lines of communication; and providing materials and other resources. This is appropriate if learners with CP are expected to follow the same curriculum as 'normal' learners, going through the same teaching methodologies.

2.6. Summary

Learners with CP need IEP strategies for effective teaching because they have varied characteristics which may hinder their functional and academic performance. The IEP strategies used to teach will most likely benefit those learners with mild and severe disabilities. Learners with CP may range from gifted and talented to those with mental disabilities. Gaps identified need to be filled for teachers teaching learners with CP to

teach effectively using IEP strategies. The strategies used in teaching are effective. However, teachers do not have enough time to complete the general education curriculum when the strategies are put in practice appropriately hence lead to poor performance of learners with CP. Accommodations, modifications and adaptations pose challenges to the teachers leading to missing link between instruction and testing. Teachers are not accurate in providing accommodations, modifications and adaptations. A study by Browder et al (2009) observed that some learners who exhibit extreme life skills and academics are completely omitted from the IEP. This leaves the gap on what is done to such learners during teaching. Teaching approaches employed by teachers involve using task analysis, where learners with CP are not assigned more-complex task, on assumption that what they cannot perform they cannot comprehend and therefore loss opportunity.

Teachers also relegate learners with CP to the role of observers. This leads to ineffective teaching of learners with CP when using IEP strategies. The study therefore seeks to find solutions to the gaps noticed.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter outlined the methods and procedures used to collect, analyze and present data in the study on implementation of IEP for effective teaching of learners with CP in two special primary schools in Kisumu County. The chapter gave details about the research design, location of the study, target population, sampling techniques and sample size, the research instruments, piloting of instruments which entails validity and reliability, data collection techniques, data analysis, and logistical and ethical considerations.

3.1. Research Design

The study adopted a descriptive survey design. Descriptive survey is quite often used in research studies which allow researchers to collect data, summarize, present and interpret for clarification. Descriptive survey is suitable for collecting data by administering a questionnaire or interviews to respondents (Orodho, 2003). To this end the researcher collected data by interviewing head teachers and used questionnaires for teachers who were sampled. Mugenda and Mugenda (1999) on the other hand, support use of descriptive survey in determining and reporting the way things are. The researcher determined and reported what was got from the respondents in line with interview schedule, questionnaires and observation schedule. Kerlinger (1996) acknowledged that descriptive studies are not restricting to fact finding but may also often result in

information of important principles of knowledge and solutions to significant problems. They involve measurement, classification, analysis, comparison and interpretation of data. In support of the same, Borg and Gall (1989) state that descriptive survey helps to produce numerical information on education issues. The study was suitable to adopt descriptive survey design because data was collected by use questionnaires, observation schedule, and interview schedule; reports were treated in their first hand form without manipulation; data was systematically collected and analyzed, generating response to research questions; and there was provision of numerical data of some parts of the population.

3.1.1. Variables

Creswell (2003) defines independent variables as those qualities that cause influences whereas dependent variables are outcome qualities. In this study, the independent variable was IEP which included accommodations, modifications, adaptations and instructional approaches used by teachers in implementing IEP. Dependent variables in this study included effective teaching which results to high enrolment, reduced drop-outs, appropriate transition, and self-reliance.

3.2. Location of the Study

The study was conducted in two public special primary schools for learners with physical disabilities in Kisumu County, Kenya. The road networks to the study schools were accessible to the researcher. Nairobi-Busia road passes through the County. The study was conducted in Nyakach and Kisumu East Sub-Counties which have schools with

learners with CP. The Sub- Counties were also chosen because they were within reach to the researcher. According to Singleton (1993), the appropriate setting for research is that which is easy to access by investigator and allow cooperation with informants. The researcher is stationed in one of the schools. Being on the site gave the researcher an opportunity to understand the actual setting without relying on the prior conceptualization as recommended by Semakula (2000).

3.3. Target Population

Target population refers to the total of all items about which information is desired. Mugenda and Mugenda (2003) is of the view that target population is population where a researcher wants to generalize the study results. The targeted population consisted of all head teachers, teachers and learners with CP from special primary schools in Kisumu County. Head teachers benefited the study as they were responsible for ensuring curriculum implementation in their schools. Learners with CP were of importance in that their academic and functional skills were observed in the school setting. Teachers were targeted as specialists and learners as consumers. The two categories of respondents are important in descriptive survey studies, namely specialists and consumers. Two sub-Counties and two schools were involved. The population was as represented below:

Table 3.1: Targeted population

Description	Population
Head teachers	2
Teachers	43
Learners	160
Total	**205**

3.4. Sample Size and Sampling Technique

3.4.1. Sample Size

The sample size for this study comprised of 2 head teachers, 16 teachers and 40 learners. This is in line with Gay (1992) who points out that less than 1000 members of target population is adequate for at least a sample of 20% for educational research. From 205 targeted populations 58 participants were sampled. This formed 28.29% of the target population which is in line with the view given by Gay, (1992). Gender consideration was done in the ratio 1:1. However, head teachers of both schools were males. The table below was the representation of the sample:

Table 3.2: Sampling matrix

Description	**Population**		**Sample Size**		**Percentage**
Institution	Joyland Special school	St. Martin Special school	Joyland Special school	St. Martin Special school	
Head teachers	1	1	1	1	100
Teachers	21	22	8	8	40
Learners	76	84	20	20	25
Total	**98**	**107**	**29**	**29**	**28.29**
Grand Total	**205**		**58**		**28.29**

3.4.2. Sampling Technique

Orodho (2012) points out that sampling is a process of selecting a sample of individuals from population such that the selected group contains elements representative of entire group. In this study multi- stage sampling was used which involved purposive sampling, stratified random sampling and simple random sampling. Purposive sampling technique gives room to a researcher to use population that has the required information in relation to the study (Mugenda and Mugenda, 2003). Therefore the following were selected purposively for the study: 2 sub-counties which have schools for learners with PH where learners with CP are found, classes and head teachers. After selecting those groups purposively the researcher used stratified random sampling for teachers and learners for the purpose of gender. This involved dividing population into homogeneous subgroups and then taking a simple random sampling in each group. The selection ensured that

certain subgroups in the population are represented in the sample in proportion to their number in the population.

Purposive selection of sub Counties and special public primary schools for learners with PH was done. The study was based on a representative sample of sub Counties and special primary schools for learners with PH. Multi-stage sampling was used as described in the three stages. In the first stage, the study drew a sample from one county and from it; two sub counties were selected. The selected sub counties have schools for learners with PH where learners with CP are found.

In the second stage, the study selected two special schools with learners with PH from each of the selected sub counties. In addition, the selection of the schools within the sub counties was also guided by presence of learners with CP. In particular, the purposive selection of the two special schools within the county ensured mild and severe conditions of learners with CP. The selection of special classes and regular classes was based on presence of learners with CP. Selection of respondents within the schools was done in the third stage of the sampling design; the study drew a representative sample of specialists and consumers in the implementation of IEP strategies. At the school level the study covered the following: learners with CP, teachers teaching learners with CP and head teachers as supervisors of the schools' curriculum implementation. In each of the selected schools, using lottery method, four learners (two boys and two girls) per class were selected by use of stratified random sampling and simple random sampling in each group of gender and severity of the learners' conditions from special class, classes one, three,

four, and seven. This way, a total of twenty learners were selected in a school. The study did not therefore cover learners from classes two, five, six, and eight, where majority were established to be PH and not CP. However, observation about materials, devices and adaptations made to the devices and equipment used by the learners was done. The selection of teachers was done by stratified random sampling and simple random sampling by lottery method. Two teachers were selected from each class (one male and female) in selected schools except from classes four and seven in one school and three and four in the other school where other four teachers had already been selected from other classes. Therefore classes four and seven involved one teacher each in final selection and classes three and four in the other school respectively. In each school selected, eight teachers were selected. In this way, a sample of 16 teachers was drawn from the two schools covered by the study. The schools had only two head teachers as supervisors of curriculum implementation who were all males.

3.5. Research Instruments

The major tools of data collection in this study were questionnaires, interview and observation schedules. The tools were developed by the researcher in line with the objectives and research questions of the study.

3.5.1. Questionnaires

The questionnaires used to collect data offered considerable advantages in the administration. They presented an even stimulus potentially to 16 respondents simultaneously and provided the investigation with easy accumulation of data. Gay

(1992) posits that questionnaires give respondents freedom to express their views and also to give suggestions. It is also anonymous. Anonymity helped to produce more candid answers than it was in interview with head teachers. The questionnaires were used to collect data from teachers. Items in the questionnaire were close and open-ended. They measured objective and subjective responses respectively. Subjective and clarified objective responses enhanced formulation of useful recommendations to the study. The questionnaires for the teachers were as follows:

3.5.1.1. Questionnaires for Teachers

The questionnaire was divided into two sections. Section I for information on the teacher's personal profile and section II for information on IEP used by teachers, implementation of IEP and approaches employed when teaching, challenges faced by teachers during implementation of IEP and intervention measures taken by teachers, and any other relevant information on IEP in selected schools was sought.

3.5.2. Interview Schedule

An interview schedule helps a researcher to understand and learn educational problems and practices and each individual's view (Cohen, Manion, and Marrison, 2001). Interview with head teachers produced in-depth data and the reason for a particular response were determined. It enabled the researcher to obtain firsthand knowledge on IEP and effective teaching in special schools with learners with CP by observing the respondents, listening to them and looking at the documents they produced. In this study, interview schedule was used for head teachers.

3.5.2.1. Interview Schedule for Head teachers

The interview schedule had the following areas examined during the interview: head teachers profile and demographic characteristics of the study schools; provision of material resources; academic and functional achievements of learners with CP; teaching approaches employed by teachers and challenges of implementing IEP. Any other information on IEP for effective teaching of learners with CP was also sought.

3.5.3. Observation Schedule

Non participant observation schedule was used. The schedule was used to collect data on methods, techniques and resources used in implementation of IEP in the classrooms by the teachers. Modifications, adaptations, accommodations and instructional approaches employed were established, and the way they were done by teachers. The learners' responses to the implementation of the IEP involved were very crucial during observation. The materials, devices, and adaptations made to the devices and equipment used by the learner with CP were observed and data collected. This was justified by the fact that, in seeking to explore the natural settings, the researcher aimed at not being obstructive (Sherman and Webb, 1988).

3.6. Pilot Study

According to Mugenda and Mugenda (2003), it is imperative to pilot the instruments to justify if that the items are clearly stated and understandable to the respondents. Therefore the reasons for piloting were to allow the researcher to establish the validity and reliability of the instruments, familiarization and administration of the instruments so

as to improve the instruments and procedures. To test the validity of the tools the researcher did piloting in a different school in Western region-Nalondo Special Primary School. The school has similar characteristics of the study schools. The instruments were administered for three days. Head teacher's interview took one day; questionnaire for teachers took two days while observation of learners and teachers took three day. As the head teacher was being interviewed the teachers were responding to the questionnaires and observation was also being conducted at the same time. Non participant observation was used with continuous observation while using observation schedules. The researcher collected data in classrooms as teachers were teaching. The data collected were on instructional approaches, resources and materials, accommodations, modifications, and adaptations teachers do. Learners' responses to IEP implementation were also observed. Results were analyzed and instruments modified. Changes were made in items which were not answered appropriately in the questionnaires and the interview schedule. In the observation schedule the items that were similar were identified and removed. One head teacher, 6 teachers and 24 learners were included in the pilot study.

3.6.1. Validity

According to Mutai (2000), content validity is commonly measured by use of experts to determine whether the items are representing concept that is being studied. The researcher requested supervisors and lecturers who had conducted other studies to assess whether the instruments could be used in the collection of data. This was approved by those consulted.

3.6.2. Reliability

The questionnaires, observation and interview schedules were administered to subjects with the same characteristics during the piloting study. This was done after an interval of two weeks. The researcher started with questionnaires, followed by interview and observation schedules. Responses were scored manually. A comparison of the scores of the first and second time results were computed using Spearman Rank Order Correlation Coefficient for questionnaire. The results obtained for questionnaire was 0.78. This showed that there was consistency of the result after repeated trials. The reliability coefficient obtained was above 0.75, which is within the required range for an instrument. According to Orodho (2012), a minimum reliability coefficient of 0.75 indicates that an instrument is reliable.

3.7. Data Collection Techniques

The researcher personally administered the questionnaires for teachers; interviewed head teachers; teachers and learners were observed during the implementation of IEP by their teachers in their respective classrooms; Qualitative data were recorded, teachers' and head teachers' records, and each class was observed twice in two weeks. The researcher observed instructional approaches teachers used, materials and resources available for use and how they were used by teacher and learners. The researcher used non participant observation by continuous observation in the classes sampled with structured observation schedules. Questionnaires were left for the respondents for a week to fill. After a week the researcher collected the questionnaires. All the questionnaires were returned. Face to face interviews with head teachers was conducted for two days. The schools were visited

alternately after the other in a week. The researcher used a series of two interview sessions in a day with each informant. Interviews allowed elaboration in areas discovered throughout the interview process and across informants. It allowed analysis and coding between interviews which led to ascertaining of provision of material resources; both academic and functional achievements of learners; teaching approaches employed by teachers and the challenges of implementing IEP strategies, and therefore allowed the researcher to ask about issues that were not considered. It also allowed for necessary time to build some level of rapport with the informants. For this reason, the researcher used thirty minutes to forty five minutes long interviews. It was enough time used to build the interviewer/ interviewee relationship to the extent that useful information about interviewee experiences were shared, while still remaining respectful to participants' time. The researcher used probe questions for elaboration. The probes were used without hints. Recording method used was writing notes.

3.8. Data Analysis

Qualitative data collected from the respondents need to be examined and organized into founded patterns to produced data intended for the study (Patton, 1990). Data analyses involved were both descriptive as well as inferential statistics. To determine whether accurate sample was obtained in terms of items and issued questionnaires, the questionnaires were also checked for completeness. Research objectives were used as headings to carry out analysis. Close ended questions generated quantitative data which the researcher coded and finally fed into Statistical Package for Social Sciences (SPSS) computer program for analysis. The quantitative data was analyzed from frequencies and

percentages generated. Open ended questions brought forth qualitative data, which were analyzed in descriptive form. Data and research findings were presented in graphic illustrations inform of tables, pie charts, and bar graphs.

3.9 Logistical and Ethical Consideration

In terms of logistical consideration the researcher obtained an introductory letter from Kenyatta University which helped in getting permit from National Commission for science Technology and innovation. After which, the researcher went for letters of authorization to collect data in Kisumu County from county commissioner and director of education. The researcher proceeded to the sampled schools for introduction and to book appointment with the informants. The informants were informed to create awareness to the learners in the classes sampled.

Ethically the researcher had a session with the informants and assured them of confidentiality and anonymity during and after data collection. They were told not to write their names on the questionnaires and that no information revealing the identity of any informant was included in the final report unless the individual consented in writing. At the end of the study any information that could reveal the identity of informants was discarded. The researcher sought consent of the participants that is head teachers, teachers and parents of learners with CP. The informants were made aware of their rights to participate or abstain in taking part. No pressure or inducement was applied to encourage one to participate. Head teachers were requested to disseminate the same information to the parents of learners with CP who were boarders in the study schools.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.0 Introduction

This chapter covers the findings, interpretations and discussions according to the objectives and research questions of the study. The purpose of the study was to examine the implementation of IEP for effective teaching of learners with CP in two special primary schools in Kisumu County. This was followed by a presentation of the study based on research objectives which sought to:

(a) Determine accommodations employed by teachers when using IEP for teaching learners with CP in two special primary schools in Kisumu County.

(b) Find out modifications done by teachers when implementing curriculum in teaching of learners with CP in two special primary schools in Kisumu County.

(c) Investigate adaptations to teaching and learning materials by teachers implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County.

(d) Identify instructional approaches used by teachers in implementation of IEP when teaching learners with CP in two special primary schools in Kisumu County.

(e) Establish challenges teachers face and intervention measures teachers take when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County.

4.1. General, Demographic Characteristics and Background Information

This section presents the general information of return rate, demographic characteristics and background information of respondents of the study schools as captured in subsection 4.1.1 to 4.1.2

4.1.1. Demographic Data

In order to establish return rate for questionnaires, training of teachers in SNE, their training levels, training in PH and their teaching experiences the researcher used a table to record the results in percentages. Table 4.1 represents the result.

Table 4.1: Demographic data

	Percentages of Demographic Data	
	Head teachers N=2	**Teachers N=16**
Return rate for questionnaires	-	100
Training in SNE	100	100
Training level in SNE at certificate	50	12
Training level in SNE at diploma	0	32
Training level in SNE at degree	50	56
Training in PH	100	75
Teaching experiences at 5 years and above	100	94

Table 4.1 shows that all the questionnaires that were issued in the study institutions were returned, the head teachers were only interviewed. This gave the researcher confidence to

carry on with data analysis. It is also evident that all head teachers and teachers are trained in SNE. This shows that head teachers have knowledge in SNE to address diverse needs of learners considering the KNCHR (2007) suggestion on relevance and appropriate training of teachers teaching learners with SNE. It was established that half of the head teachers are trained up to degree level while the other half are certificate holders in SNE. On the other hand over half of the teachers are trained in SNE at degree level, and nearly a third is diploma holders and those below a quarter are with certificate in SNE. It is evident that majority of teachers are appropriately placed to teach learners with CP. This is in agreement with Meier (2007) findings that SNE teachers were able to implement the embedded instructional strategy. The table shows that three quarters of teachers teaching learners with CP are trained in PH and all the head teachers are also trained in PH. This is contrary to KNCHR (2014) position that most teachers who were not trained in SNE were posted to schools providing education for the children with such needs. It is evident from the table that all head teachers have five years and above experience in teaching learners with CP while majority of teachers have taught learners with CP for five years and above. This is an indication that majority of teacher have vast experience in teaching learners with CP however, as experience may play major part in teaching, Helwig and Tindal (2003) in their study concluded that teachers are not accurate in their accommodations because of dismal connection between accommodation and instructions given to learners in classroom. On the other hand, Schulte et al (2004) concurs that this is due to lack of teacher prior knowledge on accommodation and testing. Therefore experience plays major role in implementation of IEP.

4.1.2. Areas of Training in Teaching Learners with CP

In a bid to establish the areas of training in which teachers trained for in teaching learners with CP, respondents were asked to state the areas they trained in to teach learners with CP. The results are indicated in Table 4.2.

Table 4.2: Areas of training in teaching learners with CP

Response	**Teachers**	**N = 16**
	N	**%**
Physical Independence and ADLs	12	75
Self- awareness and social maturation	12	75
Academic growth	12	75
Life skills training	12	75
Communication	12	75
Career Education	12	75
Recreation and Leisure time	12	75
None response	4	25

The results indicated that three- quarters of the respondents were trained in the following areas: physical independence and Activities of Daily Living (ADL); self-awareness and social maturation; academic growth; life skills training; communication; career education; recreation and leisure time. Three-quarters of respondents are trained in areas of teaching learners with CP while a quarter is not. It is evident that majority of teachers teaching learners with CP are trained in crucial areas of teaching learners with CP. This is

in agreement with Garguilo (2009) and Bigge et al (2010) major areas of teaching learners with CP which a teacher should have knowledgeable on.

4.2 Accommodations Employed by Teachers when Using IEP

The first research objective of the study sought to determine accommodations employed by teachers when using IEP for teaching learners with CP in two special primary schools in Kisumu County. The respondents were asked questions in relation to IEP namely: on training in implementation of IEP, teaching learners with CP using IEP, and support given to learners with CP to aid their access to curriculum. Observation schedule was also used to ascertain some of the responses. Subsection 4.2.1 to 4.2.3 shows the results.

4.2.1. Training in the Implementation of IEP for Learners with PH

In order to determine how effective the teacher should implement IEP for learners with CP, teachers were asked whether they are trained in implementation of IEP for learners with PH. Figure 4.1 represents the findings.

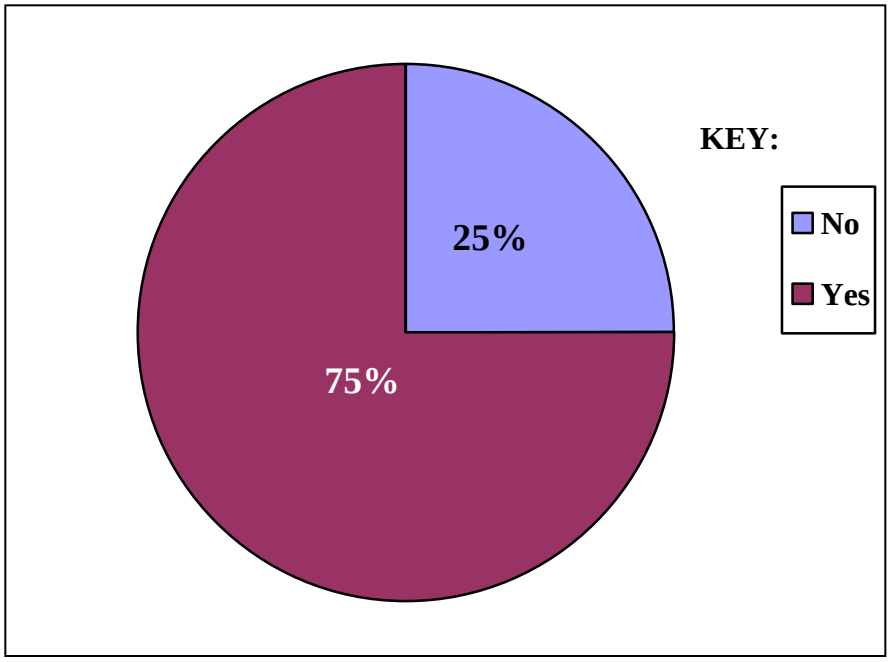


Figure 4.1: Training in implementation of IEP for learners with PH

The results revealed that three- quarters of teachers teaching learners with CP are trained in implementation of IEP. Only a quarter of the teachers are not trained in the implementation of IEP for learners with PH. Majority of teachers teaching learners with CP are trained in implementation of IEP for learners with PH. This shows that most teachers should be able to implement IEP effectively for learners with CP. This is in line with Turnbull et al (2010) recommendation that accommodations, modifications and adaptations need to be done for both general education curriculum and independent skills. This is only possible if a teacher teaching learners with CP is trained in the implementation of IEP for learners with PH where CP is a category. This is confirmed by information in table 4.2. Training of teachers in SNE is important in performance of learners. Teacher's qualifications tend to affect their behavior positively. Learners with

CP need specialist teachers who can create classroom in which engaged learning occurs to have higher levels of learners' cooperation, learners' academic performance and lifelong learning and task involvement like ADLs. Moreover, learners with CP achieve more when teachers employ task analysis that involves provision of variety of opportunities for learners with CP to apply and use knowledge and skills in different learning situations. It is thus, imperative that for teachers to apply all these skills and strategies for effective teaching, they must be trained in area of PH.

4.2.2. Teaching Learners with CP using IEP

The study sought to determine whether the teacher has taught learners with CP using IEP. Head teachers were also asked to confirm whether their teachers used IEP for the same learners. The results are indicated in Table 4.3.

Table 4.3: Teaching learners with CP using IEP strategies

Response	**Teacher**	**N = 16**	**Head teacher**	**N = 2**
	N	**%**	**N**	**%**
Yes	13	81.25	2	100
No	3	18.75	0	0
Total	**16**	**100**	**2**	**100**

From Table 4.3, it is evident that majority of teachers have taught learners with CP using IEP. Teachers below a quarter have not taught learners with CP using IEP. All head teachers confirmed through interview that their teachers used IEP for learners with CP.

Teachers teaching learners with CP develop IEPs for the learners and have used IEP. This was also confirmed through observation which found out that teachers use accommodations, modifications and adaptations to teach learners with CP. It was established that IEPs are frequently used in teaching learners with CP. This is in tandem with Turnbull et al (2010) remarks that IEP are not optional. Therefore teachers should use IEPs when teaching learners with CP so as to teach effectively.

4.2.3. Support Given to Learners with CP to Aid their Access to Curriculum

To determine accommodations done by teachers to learners with CP, teachers were asked to state support they give to learners with CP to aid their access to curriculum. Table 4.4 indicates the results obtained.

Table 4.4: Support given to learners with CP to aid their access to curriculum

Response	**Teachers**	**N = 16**
	N	**%**
Having someone read to them	8	50
Using assistive devices	10	62
Marking answers in books	12	75
Using reference aids	14	87.5
Using modified answer sheets	10	62
Study partners	5	31
Receiving extended time	16	100
Taking frequent breaks	10	62
Breaking assignments in smaller units	14	87

The results indicated that all teachers do accommodations by giving extended time to learners with CP to aid their access to curriculum. Another majority of teachers do accommodation to learners with CP by using reference aids and breaking assignment into smaller units. Three-quarters of teachers give support by marking answers in books while teachers below two-thirds support learners by using assistive devices, modified answer sheets and taking frequent breaks. Half of teachers give support by having someone read to the learners. Nearly a third of teachers use study partners to give support. These were clear indications that teachers give learners with CP support to aid their access to curriculum. This was in tune with Turnbull et al (2010) assertion that a learner with mild CP achieves success in general curriculum education class with accommodation and use of assistive devices. This is in tandem with Bigge et al (2010) view that individually based accommodations are crucial to learners in accessing the curriculum, to meet the challenges of learners with disabilities where the learners are required to attain the same results and acquire the same standards as their non-disabled peer, with additional accommodation required.

4.3 Modifications Done by Teachers when Implementing Curriculum

The second research objective of the study intended to find out modifications done by teachers when implementing curriculum in teaching of learners with CP in two special primary schools in Kisumu County. The respondents were asked questions in relation to working in the same curriculum with different learning outcome, and ways of delivering curriculum modifications. The results obtained are shown in subsections 4.3.1 to 4.3.2

4.3.1. Working in the same curriculum with different learning outcomes

This information was sought as a basis of establishing whether modifications are done to what is being taught when IEP is used in teaching learners with CP by teachers. The results are in Figure 4.2.

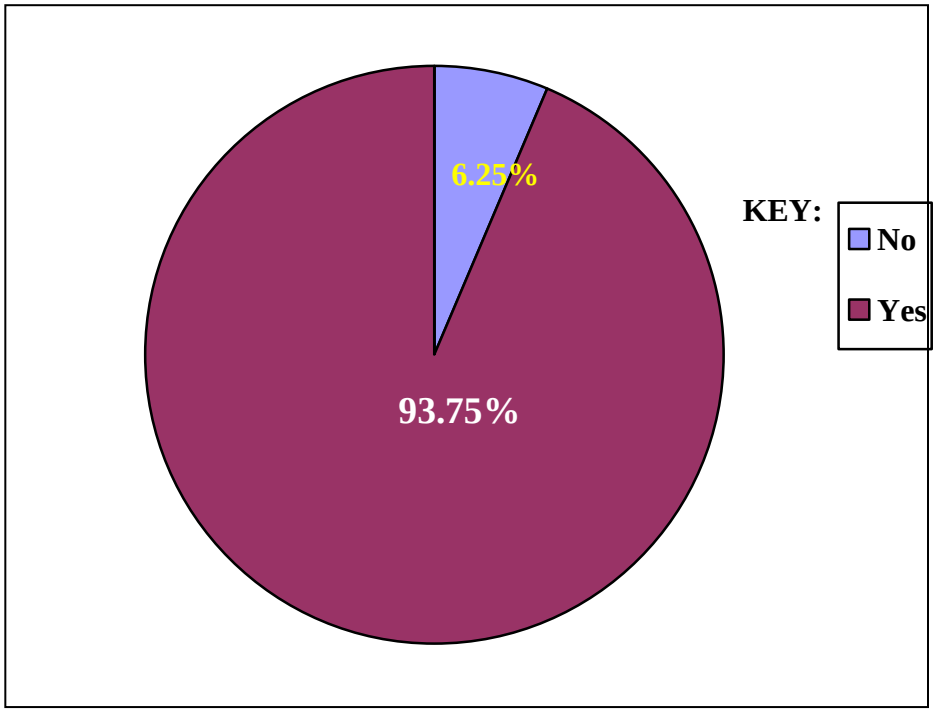


Figure 4.2: Working in the same curriculum with different learning outcomes

The results in Figure 4.2 indicate that majority of teachers do modifications to what is being taught when IEP is used in teaching learners with CP. Highly below a quarter of teachers do not do modifications to what they do teach learners with CP. It was also established through observation that modifications are done frequently and are mostly done to learners with severe CP in the special classes observed. This was in line with Pellegrino (2007) recommendation that it is crucial to use instructional modifications for

learners with severe disabilities. The instructional modifications he argues reduce learner's opportunity to learn critical knowledge, skills and concept in given subject, leaving gap in learning that can interfere with meeting school standards and that can be disadvantage in later school years and beyond. It is evident that teachers teaching learners with CP do modifications to what is being taught. It was felt that explicit and systematic curricular are needed for learners with CP in order for them to gain and apply skills in meaningful ways as proposed by Bigge et al (2010) could lead to effective teaching as it will motivate both the learner and the teacher.

4.3.2. Ways of Delivering Curriculum Modifications

Teachers were requested to state ways in which they deliver curriculum modifications. This was done in order to establish how modifications are done to what is being taught. Table 4.5 indicates the results obtained.

Table 4.5: Ways of delivering curriculum modifications

Response	**Teachers**	**N = 16**
	N	**%**
Outcomes are differently modified	10	62
Learners work towards different learning outcomes	12	75
Focus on different knowledge and working skills	16	100

According to Table 4.5, all teachers delivered curriculum modifications by focusing on different knowledge and working skills. Three quarters of teachers did deliver curriculum modifications by making learners to work towards different learning outcomes and slightly below two- thirds delivered curriculum modifications by making sure that outcomes are differently modified. It was established that majority of teachers deliver curriculum by focusing on different knowledge and working skills. This is in line with Turnbull et al (2010) which state that ways of delivering curriculum modifications are multilevel curriculum approach and overlapping. This was ensured in modification done by teachers during observation. This is also in consistent with Bigge et al (2010) curriculum modification approaches relevant for learners with CP; curricular analysis, addition of curriculum in thinking and problem solving skills, and addition of curriculum in learning strategies and study skills.

4.4. Adaptations Done to Teaching and Learning Materials

The third research objective intended to investigate adaptations to teaching and learning materials by teachers when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County, respondents were asked to state adaptations they make on materials used in teaching process, IEP strategies used to teach, and implementation of IEP by specialists in SNE was also sought. Observation was done to ascertain the responses got from the respondents. Subsections 4.4.1 to 4.4.3 show the results.

4.4.1 Adaptations made on materials used in teaching and learning

The study sought to determine the adaptations made on materials used in teaching learning process to suit learners with CP. This was done in order to establish whether adaptations are put in place as one of the IEP strategy. Table 4.6 shows the results.

Table 4.6: Adaptations made on materials used in teaching and learning

Response	**Teachers**	**N = 16**
	N	**%**
Enlarging lengths of handles	14	87.5
Enlarging sizes of handles	13	81.25
Using attachment support to hold tool at ninety degrees	10	62
Using Velcro instead of buttons/ zippers	10	62
Rulers taped over papers	7	43.75
Tabbed communication notebook	2	12.5
Using double single ruled exercise book	10	62
Adding gripping materials on pens and handles	14	87.5
Using head stick/ pointer	5	31.25

According to Table 4.6, almost majority of teachers enlarge lengths and handles of materials, add gripping materials on pens and handles, and enlarged sizes of handles on materials used in teaching and learning. Slightly below two- thirds of teachers adapted materials by attachment supports to hold tools at ninety degrees, used Velcro instead of

buttons or zippers, and double single exercise books. Slightly below half of teachers used rulers tapped over papers and nearly a third used head stick/pointer. It is observable from the Table 4.6 that teachers did adaptations on materials used in teaching and learning process to suit learners with CP. It was also established that adaptations are done on materials when observation schedule was used. Learners with CP have different individual conditions hence need individualized adaptations. This is in agreement with Turnbull et al (2010) that for learners with CP adaptations and instructions are crucial in writing, science, social studies, mathematics, literacy and language art, and personal independence. Gargiulo (2009) noted that it takes time for learners with CP to learn to use their devices, during which time they lose opportunities to communicate with others. There is therefore need to modify communication and task performance of learners with CP. This is in line with Bigge et al (2010) five areas of modifications in communication and task performance for learners with CP which include modified means of task performance, operation of assistive technology, augmentative and alternative communication, and modified means of communication.

4.4.2 IEP Strategies Used to Teach Learners with CP

In order to confirm whether teachers used IEP strategies in table 4.5, head teachers were requested to state IEP strategies used to teach learners with CP in their respective schools. Table 4.7 displays the results.

Table 4.7: IEP Strategies used to teach learners with CP

IEP strategies	Head teachers	N = 2
	N	%
Accommodations	2	100
Modifications	2	100
Adaptations	2	100

Table 4.7 shows that all teachers used IEP strategies. According to the head teachers, strategies used are accommodations, modifications and adaptations. This was confirmed during observation. In support of the same are Turnbull et al (2010) main IEP strategies used in teaching which include accommodations, modifications and adaptations. This is in line with what is needed for teaching and learning of learners with CP. Teachers ought to use the IEP strategies for effective teaching.

4.2.3. Implementation of IEP Strategies by Specialist in SNE

To determine effectiveness of IEP strategies in use, head teachers were asked whether they engage their teachers who are specialized in SNE to implement IEP strategies for learners with CP. Table 4.8 displays the results.

Table 4.8: Implementation of IEP Strategies by Specialists in SNE

Response	**Head teachers**	**N = 2**
	N	**%**
Yes	2	100
No	0	0
Total	**2**	**100**

In Table 4.8, it is clear that all head teachers engage specialist teachers in SNE to implement IEP strategies for learners with CP. As supervisor in school administration it is prerogative of the head teacher to make sure that learners are well prepared for by teachers before they are taught. In support BC MOE (2013) state that principal of a learner's school is mandated to ensure compliance with the needs described in IEP for development and implementation of a learner's IEP. This is supported by information and analysis done from Figure 4.1. Implementation of IEP strategies needs specialists for effective teaching of learners with CP.

4.5 Instructional Approaches used by Teachers in Implementing IEP

The fourth objective of the study sought to identify instructional approaches used by teachers in implementation of IEP when teaching learners with CP in two special primary schools in Kisumu County. The respondents were asked questions on embedding goals and objectives, distributed trial opportunities for learners to practice what has been

taught, teaching methods used and what is done when the methods are applied. Subsections 4.5.1 to 4.5.7 show the results.

4.5.1. Practicing what has been Taught

In order to ensure that learners with CP are given chance to practice what has been taught, teachers were asked whether they embed IEP goals and objectives in instructions. Further an explanation was also sought from the teachers. Figure 4.3 represents the results.

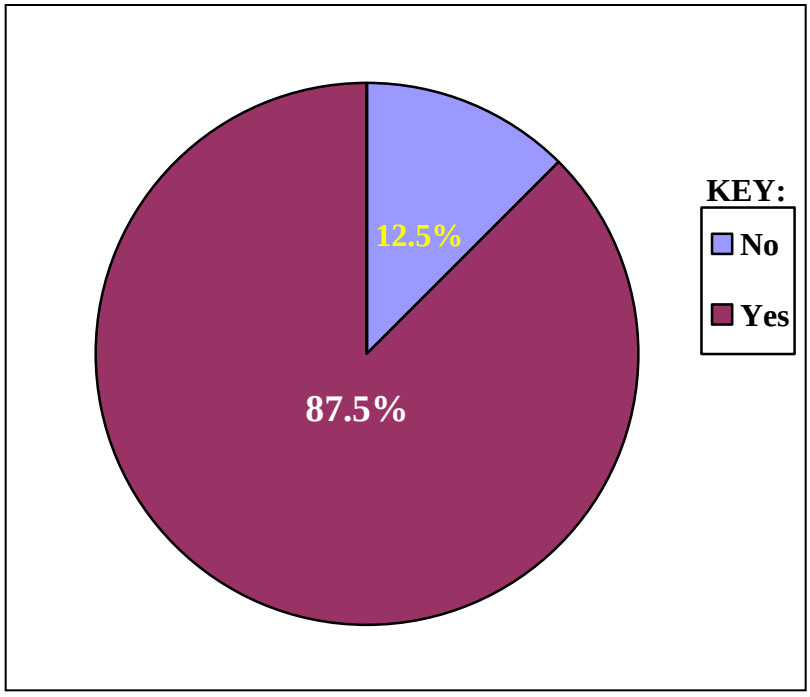


Figure 4.3: Practicing what has been taught

Figure 4.3 shows that almost majority of the respondents embed IEP goals and objectives in instruction. Very few respondents, highly below a quarter did not embed IEP goals and objectives. It was felt that it is very important to give learners with CP opportunity to

practice what has been taught in individual goals and objectives so as to establish any accomplishment. This is supported by Bricker (2001) that to create better generalization possibilities is to embed IEP goals in instruction. On one hand, respondents explained that what they teach is included with activities to expand, modify or adapt the activities. This is in line with Bricker (2001) sentiment that learners are given chance to practice what has been taught. It is imperative that learners are given opportunities to practice what has been taught for effective teaching and establishing what is not yet achieved for further remediation.

4.5.2. Opportunities for Learners to Practice Targeted Objectives

The study sought to determine whether teachers create opportunities for learners to practice targeted objectives in the IEP and to find out how teachers distribute trial opportunities for practices in planned activities. Table 4.9 shows the results.

Table 4.9: Opportunities for learners to practice targeted objectives

Response	**Teachers**	**N = 16**
	N	**%**
Yes	16	100
No	0	0
Total	**16**	**100**

Table 4.9 reveals that all respondents give opportunities for learners to practice targeted objectives. None do create opportunities for learners to practice targeted objectives. This

means that teachers create opportunities for learners with CP to practice targeted objectives in IEPs. It was established that it is done during the lesson and remedial time. However, the informants did not explain how they distribute trial opportunities for practice in planned activities. It was felt that lack of clear explanation on how teachers distribute trial opportunities for practice in planned activities could be a sign that teaching of learners with CP is not appropriate. This is in line with Potter (2013) who states that creating opportunities for learners to practice targeted objectives is done during routine activities using discrete trial naturalistic instructional techniques to provide learners with enough instructional trial. It is important that a part from the lessons and remedial time, teachers should engage learners with CP during routine or planned activities outside classrooms.

4.5.3. Other Teaching Methods Employed to Teach Learners with CP

In order to establish other teaching methods employed to teach learners with CP, teachers were asked to state the methods they employ when using IEP. Table 4.10 indicates the results obtained.

Table 4.10: Other Teaching methods employed to teach learners with CP

Instructional Approaches	Teachers	N = 16
	N	%
Diagnostic prescriptive	10	62
Thematic tutoring	3	18.75
Peer tutoring	2	12.5
Holistic approach	10	62
Task analysis	16	100
Cooperative learning	4	25
Networking	2	12.5
Collaborative teaching	5	31.25
Special grouping	7	43.75
Mentoring	7	43.75
Independent study	1	6.25
Guided practice	13	81.25

The results in Table 4.10 indicated that all respondents used task analysis to teach learners with CP when using IEP strategies. Almost majority used guided practice, below two- thirds used diagnostic prescriptive and holistic approaches, slightly below a half of teachers used special grouping and mentoring, a quarter of teachers used cooperative learning, slightly below a quarter used thematic tutoring, half way below a quarter used independent study. All teachers used task analysis because it involves other approaches,

Meier (2007) sees task analysis as being based on the notion that learning is cumulative; it is compatible with curricular sequences frequently found in grade-level texts. It is because of this that most teachers find themselves using the approach knowingly or

without knowing. Table 4.10 concurs with approaches that were established during observation which were frequently in use namely: task analysis and guided practice.

4.5.4. Approaches which Help in Identifying Areas of Difficulties

In order to establish appropriate approaches or methods used by teachers to identify areas of difficulties of learners with CP, teachers were asked to state the approaches which serve them best. Figure 4.4 presents the results.

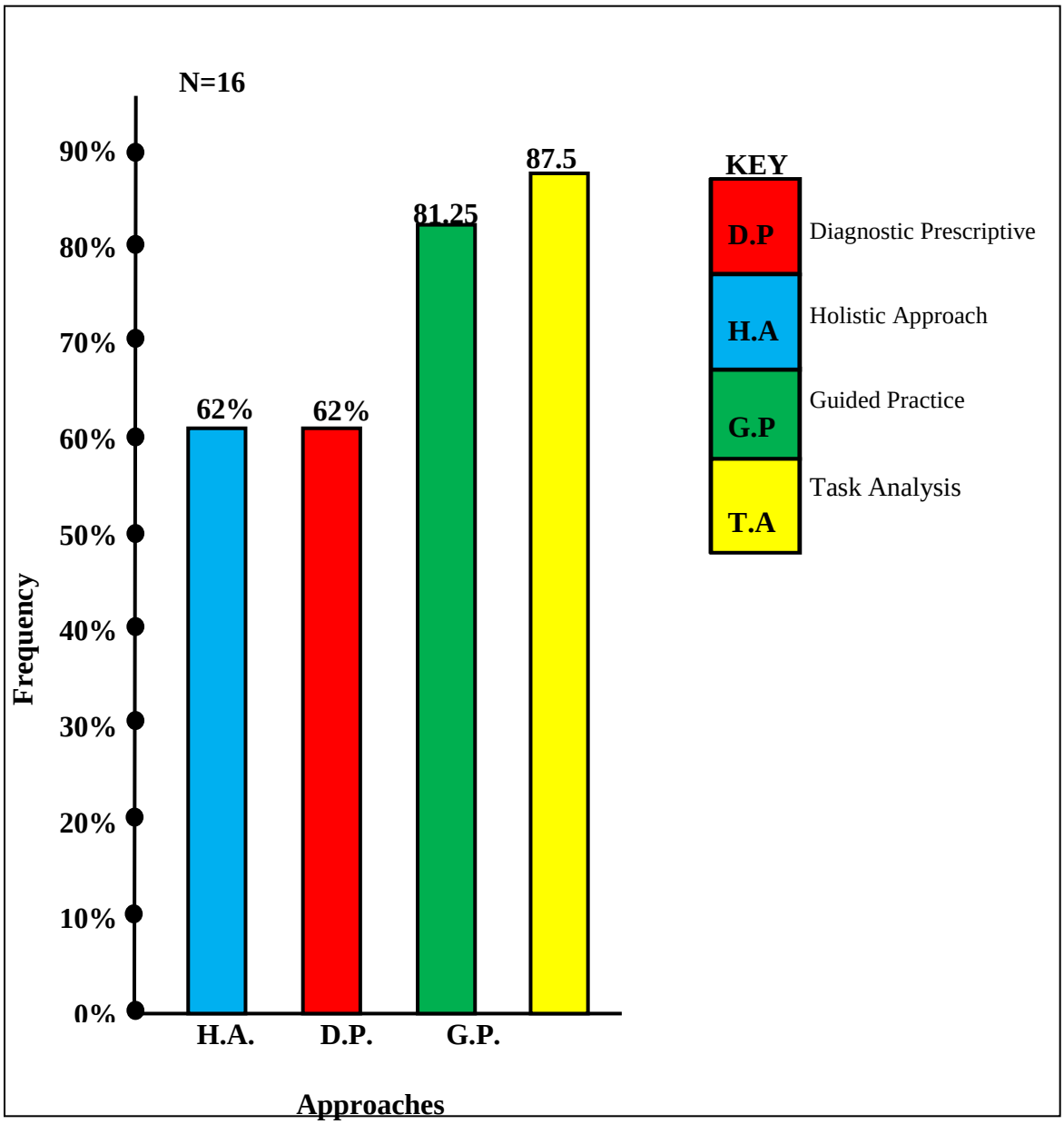


Figure 4.4: Approaches which help in identifying areas of difficulties

According to Figure 4.4 almost majority of the respondents used task analysis to identify areas of difficulties of learners with CP. Slightly below majority used guided practice while slightly below two- thirds of teachers used diagnostic prescriptive and holistic approach. It is evident that teachers used task analysis to identify areas of difficulties of learners with CP. This was also observed during observation; task analysis and guided

practice were commonly in use. This is in line with Bigge et al (2010) that task analysis is a helpful strategy when observing an individual attempting a functional task in natural situation but experiencing difficulty. Observers are able to analyze what parts, or steps pose the difficulties through noting which subtasks were performed successfully and those not performed.

4.5.5. Identification of the Difficulties Experienced by a Learner with CP

In relation to suitable approach used to identify areas of difficulties which learners with CP experience, teachers were asked to state what they do after identification of the problems. Figure 4.5 represents the results.

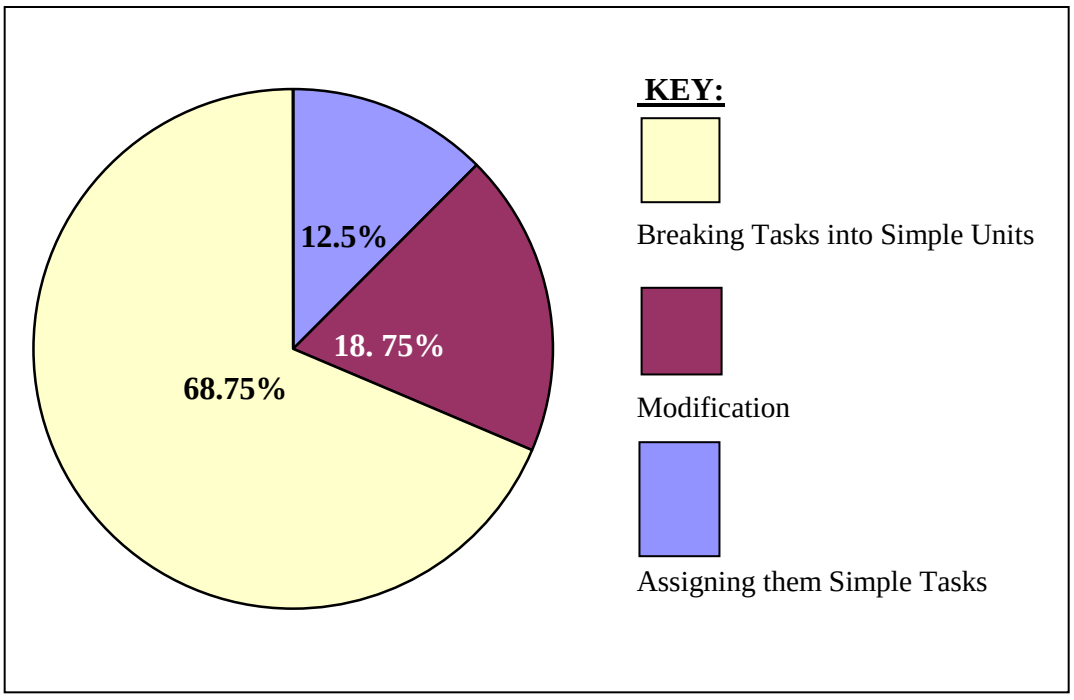


Figure 4.5: Identification of the difficulties experienced by a learner with CP

Figure 4.5 reveals that slightly above two thirds of respondents break tasks into simple units, slightly below a quarter do modification while highly below a quarter of teachers assign learners with CP simple tasks. It is clearly shown that teachers break difficult tasks into simple units for learners with CP. Bigge et al (2010) concur that unaccomplished tasks can be targeted for future learning as temporary target tasks. They reiterate that if these difficulties are not identified and accommodations not done, learners are unable to demonstrate what they know and can do.

4.5.6. Period Given to Learners with CP to Practice what has been Taught

In order to establish whether learners are given time to practice what they are taught effectively, teachers were asked to state the length of time they involve learners with CP to practice individual goals. Figure 4.6 indicates the results obtained.

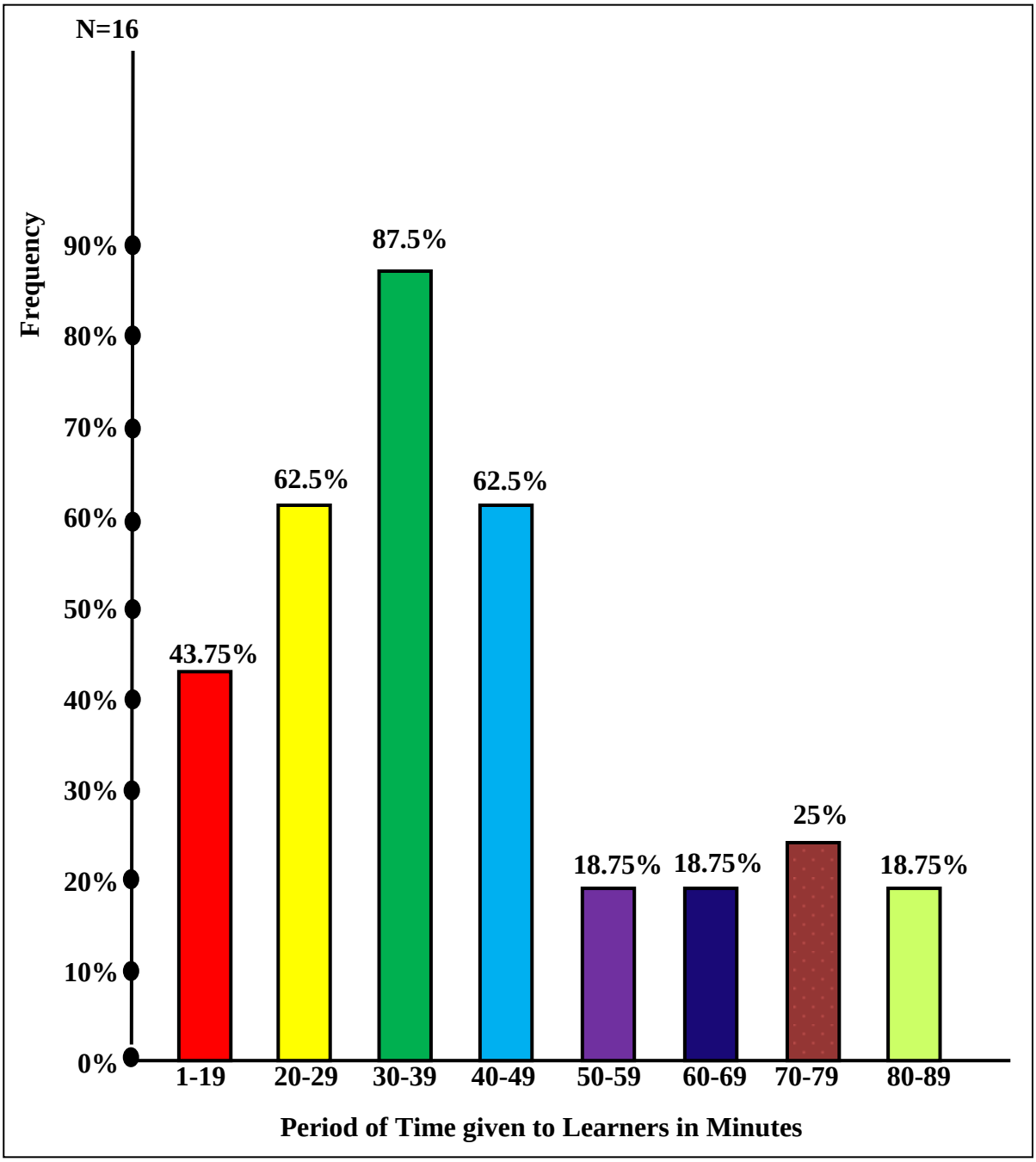


Figure 4.6: Period given to learners with CP to practice what has been taught

According to figure 4.6, majority of teachers give learners with CP up to between 30 to 39 minutes to practice what has been taught, slightly below two-thirds give between 20 to

29 and 40 to 49 minutes, over a third give between 1 to 19 minutes, a quarter of teachers give between 70 to79 minutes while slightly below a quarter of teachers give 50 to 59, 60 to 69, and 80 to 89 minutes. It is observable that majority of teachers give learners with CP within 30 minutes to practice what has been taught. This is in tandem with Meier (2007) that embedding within 30 minutes schedule is more effective than within 120 minutes schedule.

4.5.7. Teacher Effectiveness in Implementation Process of IEP

Head teachers as supervisors and administrators of the study schools were asked to state how effective they felt about their teachers' implementation of IEP. Table 4.11 displays the results.

Table 4.11: Teacher effectiveness in implementation process of IEP strategies

Response	**Head teachers**	**N = 2**
	N	**%**
Effective	0	0
Fairly effective	2	100
Total	**2**	**100**

Table 4.11 shows that all the head teachers feel that their teachers were fairly effective in implementation process of IEP strategies. None of the head teachers was of the opinion that they are effective. They argued that teachers are not able to accomplish their targeted objectives by the end of the school calendar year. In support, from the observation

schedule it was established that there were achievements not in all areas which interfered with learners' ability to participate in learning. However, according to Meier (2007) special education teachers are able to implement the embedded instructional strategy. The strategies are effective although the efficiency of distributed and massed trial differed by learners. On the other hand, Silberman and Sacks (2000) posit that performance may be affected by an ineffective learning environment or negative attitude toward the learner. Therefore teacher should set learning environment effective for teaching and learning situation and interact with the learners.

4.6. Challenges Teachers Face and Intervention Measures

The fifth objective of the study sought to establish challenges teachers face and intervention measures teachers take when implementing IEP in teaching of learners with CP in two special primary schools in Kisumu County. Teachers were asked to state challenges during presentation, response, setting, and timing the lesson. Intervention measures teachers take was also sought. Input of head teachers was also sought on challenges encountered by their teachers. The results obtained are shown in subsections 4.6.1 to 4.6.7.

4.6.1 Challenges Faced During Presentation

There are myriad of challenges faced by teachers during lesson presentation to learners with CP. Teachers were asked questions on challenges they face when presenting their lessons. Table 4.12 displays the results.

Table 4.12: Challenges faced during presentation

Challenges faced during presentation	Teachers	N = 16
	N	%
Overwhelming amount of work in teaching	16	100
Insufficient text books	10	62.5
Time consumed on individualized work	9	56.25

It is observable in table 4.12 that all teachers face overwhelming amount of work in teaching as a challenge during presentation, slightly below two- thirds of teachers face insufficient text books as a challenge and over half of teachers find time consumed on individualized work as a challenge during presentation. Teachers teaching learners with CP are faced with overwhelming amount of work during presentation. KNCHR (2014) concurs that due to understaffing the implementation of IEP is problematic. This is supported by Courtade et al (2012) that teachers feel increased pressure resulting from time spend covering the curriculum. On the other hand, it was established during observation that time consumed on individualized work was too much at the expense of other learners because of the issue of insufficient text books for learners to support presentation. However, Goldstein and Behauniak (2010) posit that learners with CP exhibit severe processing deficits and require more time and preparation. Teachers should therefore be well prepared to deliver curriculum to learners with CP in spite of the challenges.

4.6.2 Challenges Faced During Response

In order to establish challenges faced by teachers during response when teaching learners with CP, teachers were asked questions on challenges they encounter during learners response period. The results are in Table 4.13.

Table 4.13: Challenges faced during response

Challenges faced during response	**Teachers**	**N = 16**
	N	**%**
Insufficient tilt desks, book stands and paper holders	15	93.75
Learners inability to write legibly	8	50
Difference in severity of learners disabilities	5	31.25

The results in table 4.13 indicated that majority of respondents face insufficient tilt desks, book stands, and paper holders as a challenge during response when teaching learners with CP while half of the respondents face learners' inability to write legibly as a challenge. Nearly a third of the respondents face difference in severity of learners' disabilities as a challenge during response. Learners with CP require a lot of materials and devices because of their varied disabilities. Luke and Schwartz (2007) concur that most learners with CP have problems in responding due to difficulties with motor and poor functional skills. It was established during observation that pens, books, page turners, book holder, finger spacers and specialized writing books or papers were not adequate for use during the lessons. In support, Hardman et al (2005) state that

insufficient materials are barriers to implementation practices of IEP. It is therefore important that teachers practice appropriate ways of overcoming the challenges they face.

4.6.3. Challenges Faced in Classroom Setting

The information was sought with a view of establishing challenges teachers teaching learners with CP face in their classroom setting during curriculum delivery. The results are indicated in Table 4.14.

Table 4.14: Challenges faced in classroom setting

Challenges faced in classroom setting	Teachers	N = 16
	N	%
Poor infrastructure	15	93.75
Congestion in classroom	14	87.5
None preferential seats	16	100

According to Table 4.14, all respondents face non preferential seats for learners with CP as a challenge in their classroom setting during curriculum delivery. Another majority face the challenge of poor infrastructure while nearly majority face congestion in the classrooms as a challenge. It is evident that teachers face challenges in their classroom setting during curriculum delivery. During observation it was established that preferential seats for learners with CP were not available making it difficult for the learners to write. Teachers were not encouraging preferential seating due to congestion in the classrooms.

This hinders effective teaching of learners with CP. Tomlinson (2007) agrees that learners with physical impairments may need barrier free environment, specialized equipment, preferential seating, study carrels or specialized lighting. Hardman et al (2005) concur that insufficient material is a barrier to implementation practices.

4.6.4. Challenges Faced in Scheduling Practices during the Lesson

In a bid to establish challenges teachers teaching learners with CP face in scheduling or timing learners, teachers were asked to state challenges they face. The results are indicated in Table 4.15.

Table 4.15: Challenges faced in scheduling practices during the lesson

Challenges in timing	**Teachers**	**N = 16**
	N	**%**
Inadequate time	16	100
Congestion in program of activities	16	100
Too short time in time table	16	100

Table 4.15 shows that all teachers are faced with the following challenges in timing during teaching: inadequate time, congestion in program of activities, and too short time in time table. It is in order that learners with CP are given enough time during the lesson so that they can be able to practice the new concepts taught. In support Goldstein and Behauniak (2010) state that learners with CP exhibit severe processing deficits and require more time and preparation. However, it is evident that timing is a challenge to

teachers; this is in line with Courtade et al (2012) that teachers feel increased pressure resulting from time spent covering the curriculum. This hinders effective teaching of learners with CP. Even so, Marty (2010) observes that learners with CP are slow learners may need schedule accommodations. Learners with CP need extra time to use accommodations. It was felt that there is need of adequate time and teachers.

4.6.5. Support Materials Provided to Teachers Teaching Learners with CP

In order to establish if support materials are provided or not to teachers teaching learners with CP, head teachers were asked to confirm what support materials they provide to teachers teaching learners with CP. Table 4.16 displays the results.

Table 4.16: Support materials provided to teachers teaching learners with CP

Support materials	**Head teachers**	**N =16**
	N	**%**
Pens , crayons, head pointers	2	100
Text books, pictures, maps	1	50
Pen holders, page turners, preferential seats	1	50

According to Table 4.16, all head teachers provide support materials such as writing materials which include pens, crayons, and head pointers. Half of the head teachers provide reference aids and assistive devices to teachers teaching learners with CP. These were found to be text books, pictures and maps. However, all head teachers admitted that the resources are not adequate for teaching learners with CP. It was established during

observation that computers were missing; however there were inadequate pens, books, preferential seats, head pointers/ sticks, page turners, and book holders which were necessary for the learners with CP during the lessons. This is in tandem with Hardman (2005) that barrier to implementation practices are insufficient materials. This is in line with information got from respondents in Table 4.13 and 4.14 which show that the resources are inadequate.

4.6.6. Learners with CP Self- reliance, Drop- out, and Repetition of Grade

The head teachers were requested to indicate whether in their schools learners with CP graduate from school self- reliant, drop- out of school or repeat grades and to explain their responses. Table 4.17 shows the results.

Table 4.17: Learners with CP self- reliance, drop- out, and repetition of grades

Year	**Enrolment**	**Self-reliance**		**Drop-out**		**Repetition**	
		N	%	N	%	N	%
2011	95	30	31.58	20	21.05	45	47.40
2012	105	25	23.81	40	38.10	40	38.10
2013	110	20	18.18	30	27.27	60	54.55
2014	140	40	28.57	40	28.57	60	42.86
2015	160	50	31.25	35	21.88	75	46.88
Total	**610**	**165**		**165**		**280**	
Average			**27.0**		**27.0**		**45.90**

Source: Head teachers' interview schedule

The findings about learners with CP on self- reliance, drop-out and repetition of grades between 2011 to 2015 revealed that almost half of the learners repeated grades while below a third graduated as self- reliant and others below a third dropped out of school. It is evident that most of learners with CP repeated grades between 2011 and 2015. This was also confirmed by head teachers who stated that few learners drop- out of school and graduate without being self- reliant. They stated that those who drop-out of school do so because of low progression, poor performance and inadequate materials and resources which are necessary in their learning. They cited poor performance and low progression to repeating grades. It was also noted that severity of learners' disabilities was a major cause. During observation it was established that majority of learners with CP had low achievement in writing, reading, motor skills, problem solving, play skills and daily living skills. It was observed that almost a third of learners had high achievement in the skill areas above. It was felt that in tandem with Silberman and Sacks (2000) recommendation, teachers should be responsive to learners needs. Head teachers should ensure effective learning environment for learners with CP to reduce drop- out and repetition, and more so to create self – reliance among learners with CP. This is the best way to create conducive environment for implementation of IEP strategies for effective teaching.

4.6.7 Intervention Measures to Challenges Faced by Teachers

In order to determine intervention measures to challenges faced by teachers when implementing IEP strategies, teachers were asked to indicate intervention measures they

take to avert challenges they face when implementing IEP strategies. The results are indicated in Table 4.18.

Table 4.18: Intervention measures to challenges faced by teachers

Challenges	**Intervention measures**
Inadequate resources	Improvising materials
Overwhelming amount of work in teaching	Use of study partners
Limited time	Differentiating time table
Congestion in classroom	Separating room
Poor infrastructure	Adaptation of devices

Table 4.18 shows that although teachers face challenges when implementing IEP strategies they try other means to avert the challenges. Improvisation of materials, use of study partners, differentiating time tables, use of separate rooms and adaptations to devices used by learners with CP were indicated as intervention measures to challenges they face. This is in line with Eason and Whitbread (2006) assertion that teachers should consider testing accommodation to ensure learners have a chance to show that they know. This is also inconsistent with Macy and Bricker (2007) suggestion on embedding social skills expressed in IEP goals. They state that embedding opportunities for social skills practice can make education environment more successful options for learners with CP. However, Bricker (2001) also suggests that teachers should determine appropriate time for instruction in classroom daily schedule to implement the strategies. This will assist

teachers to compensate for the limited time. For the inadequate materials and resources, teachers need to be provided with materials and other resources (Garguilo 2009). These issues need to be addressed urgently.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0. Introduction

This chapter comprises of summary of main findings and conclusions based on the findings by research objectives and recommendations based on the study findings and suggestions for further studies.

5.1. Summary of Research Findings

The purpose of the study was to examine implementation of IEP for effective teaching of learners with CP in two special primary schools in Kisumu County by determining accommodations, modifications, adaptations, instructional approaches, challenges and intervention measures. This section has summary of research findings presented, analyzed and discussed in chapter four by research objectives that guided the study. This is captured in subsections 5.1.1 to 5.1.4.

5.1.1. Accommodation Employed by Teachers when using IEP

The study found out that teachers give learners with CP support to aid their access to curriculum. It was noted that majority of teachers give the following support: having someone read to the learners, using assistive devices, marking answers in books, using reference aids, using modified answer sheets, receiving extended time, taking frequent breaks and breaking assignments into smaller units for learners with CP.

5.1.2. Modifications Done by Teachers when Implementing Curriculum

The study realized that majority of teachers do modifications to what is being taught when IEP is used in teaching learners with CP. Most teachers use modifications to deliver curriculum in the following ways: focusing on different knowledge and working skills, allowing learners to work towards different learning outcomes and making sure that outcomes are differently modified. Therefore majority of teachers do modifications during curriculum delivery to learners with CP.

5.1.3. Adaptations to Teaching and Learning Materials when Implementing IEP

The study established that adaptations are made on materials used in teaching and learning. It was established that the following adaptations are done on materials used in teaching and learning: enlarging lengths and sizes of handles, adding gripping materials on pens and handles, using attachment supports and Velcro, and using double single ruled exercise books. Therefore majority of teachers do adaptations on materials used in teaching and learning of learners with CP. It was also revealed that head teachers as supervisors engaged specialist teachers in SNE to prepare IEP strategies for the learners with CP.

5.1.4. Instructional Approaches used by Teachers when Implementing IEP

The study revealed that majority of teachers give learners with CP opportunities to practice what has been taught. It further indicated that teachers create distributed trial opportunities for learners with CP to practice targeted objectives which are done during the lesson and at remedial time. The findings indicated that most teachers use other

instructional approaches such as task analysis, guided practice, holistic approach and diagnostic prescriptive approach among other approaches. It was equally established that approaches which help in identifying areas of difficulties for learners with CP are task analysis and guided practice. The study found out that after identification of the difficulty experienced by a learner with CP, teachers break the task identified into simple units for further instructions for the learner. It was also discovered that period of time given to the learner with CP to practice what has been taught is within 30 to 39 minutes. Teachers were fairly effective in the implementation of IEP.

5.1.5. Challenges Teachers Face and Intervention Measures

Findings indicated that teachers faced the following challenges during presentation of the lesson: Overwhelming amount of work in teaching, insufficient text books for learners, and time consumed on individualized work. Teachers similarly faced the following challenges during learner's response time: insufficient tilt top desks and book stand; learners' inability to write legibly; severity of learners' disabilities. The study revealed that teachers are challenged in classroom setting during the lesson, this was noted to be because of poor infrastructure, congestion in classrooms and lack of preferential seats which pause difficulty for learners to write. Preferential seating was not encouraged due to congestion in some classrooms. It was as well established that teachers faced the following challenges in timing or scheduling practices during teaching: inadequate time, congestion in program of activities and too short time in the time table.

The study discovered that support materials are provided to teachers teaching learners with CP. The materials for support were found to be: writing materials, reference aids and assistive devices. It was revealed that the resources and materials were inadequate. They included pens, crayons, writing brushes, text books, maps, charts, pen holders, book holders, page turners, and preferential seats. The study discovered that not all learners with CP graduate from school self- reliant, some drop- out of school and others repeat grades. It was established that the reasons for these were: low progression, poor performance and inadequate materials and resources for enhancing their learning. It was also noted that severity of the learners' disabilities was a major contributing factor.

The study established that teachers take intervention measures to challenges they face by improvising resources and materials, involving study partners to learners with CP, differentiating time tables, using separate rooms instead of congested rooms for learners with CP and adaptations to devices which are used.

5.2. Conclusion

This section focused on conclusion based on the findings by research objectives and summary. The study resulted in main conclusions as follows:

The study concludes that IEP have been employed by teachers in two special primary schools for effective teaching of learners with CP. This is shown by the findings that indicate that trained teachers in PH have given support to learners with CP, used modifications to deliver curriculum, and adapted materials used in teaching and learning. Teachers have also employed other instructional approaches when using IEP in teaching

learners with CP. The approaches include creating distributed trial opportunities for learners to practice what has been taught and use of task analysis, guided practice, holistic approach and prescriptive approach. A learner is also given 30 to 39 minutes to practice what has been taught.

Even so, in conclusion teachers still face several challenges during the implementation of IEP in presentation, response, classroom setting and scheduling practices. Among the key challenges include insufficient materials and resources, poor infrastructure, congestion in the classrooms, congestion in the time table, and overwhelming amount of work in teaching and severity of learners' disabilities. This has prompted use of ineffective teaching of the learner and creating little room for use of instructional approaches that need IEP. Moreover, teachers have taken intervention measures to challenges they face by improvising materials, involving study partners, differentiating timetables, using separate rooms for learners with CP, and adaptation to devices used.

The study also concludes that intervention measures employed have not been effective in ensuring effective teaching of learners with CP in studied schools. The challenges of overwhelming amount of work in teaching and material resources have made achievement of IEP difficult. This is shown by the findings that there is learners' low progression and poor performance which has made some learners to drop-out of school, repeat grades, and to be dependents.

In general the study concludes that implementation of IEP is crucial for effective teaching only if trained teachers and material resources are adequate.

5.3. Recommendations

This section of the study covers recommendations related to government policy and those for further studies.

5.3.1 Recommendations related to government policy

In view of the findings based on conclusion made by the research, the following recommendations should be considered if effective teaching is to be realized by implementation of IEP.

i. The government through MoE should employ more teachers specialized in PH so that they can support the existing teachers to implement IEP to avert overwhelming amount of work in teaching in special primary schools with learners with CP.
ii. Resources and teaching materials allocation to schools with learners with CP should be increased to meet learners' needs.
iii. Teachers should diversify their ways of accommodations, modifications and adaptations during curriculum delivery to learners with CP.
iv. Teachers should plan strategies for learners with CP appropriately
v. Teachers should review learner's daily routines and activities and consider within which circumstance each objective might fit.
vi. Teachers should engage all learners with CP during routine or planned activities outside Classroom.

5.3.2. Recommendations for Further Studies

On the basis of the research findings, summary and conclusions the following areas are worth researching on:

i. A study should be done in other sub Counties to investigate implementation of IEP for effective teaching of learners with Hearing Impairments (HI), Visual Impairments, and PH in special primary schools.

ii. There is need to study implementation of IEP for effective teaching of learners with HI, VI, and PH in special secondary schools.

iii. A study should be carried out on learners with CP self- reliance at school and home.

iv. A study should be carried out on learners with CP dropping out of school and repeating grades.

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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR TEACHERS

Please give your facts and opinion on your training and teaching learners with cerebral palsy. Please tick or fill in as appropriate .Your responses and information obtained will be treated with utmost confidentiality and will be used for the purpose of the study only.

Section I

Teacher's Personal Profile:

1. Gender Male ( ) Female ( )

2. Have you trained in Special education? Yes ( ) No ( )

3. What level of training do you have? Masters ( ) Undergraduate ( ) Diploma ( ) Certificate ( )

4. Did you train in area of physical disabilities? Yes ( ) No ( )

5. If yes, specify areas of teaching learners with cerebral palsy you undertook?

……

6. How long have you taught learners with cerebral palsy?

Below 1 year ( ) 1-2 year ( ) 3-4 year ( ) 5+ year ( )

Section II

Information on IEP:

7. Did you train in implementation of IEP for learners with cerebral palsy? Yes ( ) No ( )

8. Have you ever taught learners with cerebral palsy using IEP strategies? Yes ( ) No ( )

If yes, what supports do you give to the learners to aid their access to the general curriculum?.....

9. Do your learners with CP work in the same curricular with different learning outcomes? Yes ( ) No ( )

If yes, state the ways you use to deliver modifications……

……

10. What adaptations do you make on materials used in teaching and learning process to suit learners with CP?.....

11. Do you give opportunities to learners with CP to practice what has been taught? Yes ( ) No ( )

If yes, explain……

12. Do you create opportunities for learners with CP to practice targeted objectives during routine or planned activities? Yes ( ) No ( )

If yes, how?.....

13. State teaching approaches that you use to teach learners with CP when using IEP strategies? ……

14. Which approaches amongst the above (number 13) help you most in identifying areas of difficulties which a learner with CP has?.....

……

15. What do you do after identifying the difficulty experienced by a learner with CP?.....

.....

16. How long do you involve learners with CP to practice what has been taught?.....

.....

17. What challenges do you face in the following areas during the implementation of IEP strategies

(a) Presentation of the lesson?.....

(b) Response by learners?.....

(c) Setting of the classroom?.....

(d) Timing the learners?.....……

18.State the intervention measure to challenges you face when employing IEP strategies

……

……

……

……

APPENDIX B

INTERVIEW SCHEDULE FOR HEADTEACHERS

School ……Date……

1. Are you trained in SNE? Yes ( ) No ( )

2. If yes, state the level

3. How long have you taught learners with CP?

4. Do you have learners with cerebral palsy in your school? Yes ( ) No ( )

5. Is IEP developed to the learners in the above cases? Yes ( ) No ( )

6. State the IEP strategies used for learners with cerebral palsy in your school?

7. Do you engage the teachers who are specialized in special needs in implementation of IEP strategies in your school? Yes ( ) No ( )

8. How effective are the teachers in terms of participation in the implementation process of IEP strategies? (a) Fairly effective (b) Effective

9. What support materials do you give to teachers who teach learners with cerebral palsy?

10. Do your learners come out of school self-reliant, drop- out of school or repeat grades?

Yes ( ) No ( ) If yes, explain…….

11. What problems do your teachers face when implementing IEP strategies in your school?

APPENDIX C

OBSERVATION SCHEDULE

School…… Date……

Class……

Implementation of IEP strategies in classroom by teachers

1. Teaching approaches used in IEP strategies in classroom.

Method	**Very frequent**	**Frequent**	**Rare**	**Very rare**
➢ Special grouping				
➢ Peer partners				
➢ Mentoring				
➢ Independent study				
➢ Task analysis				
➢ Collaborative teaching				
➢ Guided practice				
➢ Cooperative learning				
➢ Others				

2. Resources used in IEP strategies in classroom.

Resources	**Number identified**	**Number used during lesson**
Computers		
Pens		
Books		
Seats		
Abacus		
Head pointers		
Page turners		
Book holders		

3. Modification, adaptation and accommodation.

Activities	**Very frequent**	**Frequent**	**Rare**	**Very rare**
Modifications				
Adaptations				
Accommodations				

4. Deficit skill areas which interfere with learners' ability to participate and progress in curriculum

Skill areas	**Available learners**	**Level of achievement**	
		High	**Low**
Reading			
Writing			
Physical development			
Cognitive processing			
Social skills			
Memory			
Behavior			
Motor skills			
Communication			
Listening			
Auditory perception			
Study skills			
Organization			
Problem solving			
Play skills			
Visual perception			
Daily living skills			

APPENDIX D

INFORMED CONSENT FOR PARTICIPANTS

My name is **Samuel Agumba** I am a master student from Kenyatta University. I am conducting a study on title **"Implementation of Individualized Education Programme for Effective Teaching of Learners with Cerebral Palsy in Two Special Primary Schools, Kisumu County Kenya".** The information will be used by teachers teaching learners with CP.

Procedures to be followed

Participation in this study will require that I ask you some questions on teaching learners with CP. You have the right to refuse to participation in this study. You will get care and protection whether you agree to join the study or not and your decision will not change the care and protection you will receive from the researcher. Please remember that participation in the study is voluntary. You may ask questions related to the study at any time. You may refuse to respond to any questions and you may stop an interview at any time. You may also stop being in the study at any time without any consequences.

Discomfort and risk

If you find some of the questions embarrassing you may refuse to answer these questions if you choose so. You may also stop the interview at any time. The interview may add approximately half of an hour to the time you wait before you receive your routine service.

Benefits

If you participate in this study you will help us to learn how to provide effective teaching for learners with CP and reduce their being dependents, you will also gain knowledge of teaching learners with CP.

Confidentiality

Your name will not be recorded on the questionnaire, interview schedule or observation schedule. All the tools will be with the researcher only. Coding will be done to conceal your identity.

Contact information

If you have any questions you may contact Dr. Stephen Nzoka 1. on 0722557421 or Dr. Madrine King'endo 2. on 0720701579 or Kenyatta University Ethics Review Committee Secretariat on chairman kuerc@ku.ac.ke, kuerc@ku.ac.ke. Ercku2008@gmail.com

Participant's statement

The above information regarding my participation in the study is clear to me. I have been given a chance to ask questions and my questions have been answered to my satisfaction. My participation in this study is entirely voluntary. I understand that I will still get the same care and protection whether I decide to leave the study or not and my decision will not change the care and protection that I will receive.

Code of participant……..

……. ……

Signature or thumb print Date

Investigator's statement

I, the undersigned, I have explained to the volunteer in a language she/he understands, the procedures to be followed in the study and the risks and benefits involved.

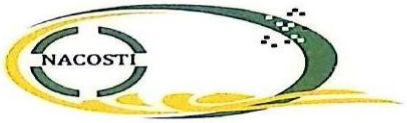
Name of the interviewer…….

…… …….

Interviewer signature Date

APPENDIX E

AUTHORIZATION LETTER



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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NAIROBI-KENYA

Ref: No.

Date:
23rd July, 2015

NACOSTI/P/15/0511/6871

Samuel Ojoro Ranny Agumba
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Individualized education programme strategies and effective teaching of learners with cerebral palsy in special primary schools in Kisumu County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kisumu County** for a period ending **30th November, 2015.**

You are advised to report to **the County Commissioner and the County Director of Education, Kisumu County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

DR. S. K. LANGAT, OGW
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kisumu County.

The County Director of Education
Kisumu County.

APPENDIX F

RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. SAMUEL OJORO RANNY AGUMBA
of KENYATTA UNIVERSITY, 75-40109
sondu,has been permitted to conduct
research in *Kisumu County*

on the topic: *INDIVIDUALIZED EDUCATION PROGRAMME STRATEGIES AND EFFECTIVE TEACHING OF LEARNERS WITH CEREBRAL PALSY IN SPECIAL PRIMARY SCHOOLS IN KISUMU COUNTY, KENYA*

for the period ending:
30th November,2015

.....
Applicant's Signature

Permit No : NACOSTI/P/15/0511/6871
Date Of Issue : 23rd July,2015
Fee Recieved :Ksh 1,000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 5919

CONDITIONS: see back page