

**INDUCTIVE QUESTIONING ON THE LEARNING ABILITY OF THE
MENTALLY RETARDED CHILDREN IN MATERI
SPECIAL UNIT THARAKA DISTRICT,
KENYA**

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In Partial Fulfillment of the Requirements for the Degree
Masters of Art in Education in Special Needs Education.

By:

Anderson Charles Mugambi Miriti

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DECLARATION A

This thesis is my original work and has not been presented for degree or any other academic award in any university or institution of learning.

ANDERSON CHARLES MUGAMBI MIRITI

Signature 

Date 16/10/2012.

DECLARATION B

"I confirm that the work reported in this thesis was carried out by the candidate under my supervision".

Name and Signature of Supervisor

Date

DEDICATION

This thesis is dedicate to the researcher's child Joy and wife.

ACKNOWLEDGEMENT

This thesis had not been easy. It required a lot of courage interest and perseverance. It would not have been what it is now had it not been for the help of the following:

The almighty God who has blessed the researcher with enough strength, good health, perseverance and stability throughout the thesis process. The researcher's parents and family; the entire staff of KIU college of higher degrees and research (CHDR) and KIU as a whole; the researcher's supervisor, Dr Novermbrieta Sumil, DVC-CHDR , for her guidance and support in the whole Quasi – experimentation process and for editing this manuscript; the panelist (Dr Wiberforce Tindekwa , Dr Sara Kyolaba and Dr fred Semugenyi) for their intellectual inputs during the proposal and viva voce; morally who assisted the researcher in one way or another, be it morally or financially.

ABSTRACT

This study abstract determines the effects of inductive questioning in the learning ability of mild mentally retarded children of Materi Special unit of Tharaka district, Kenya. In particular this empirical research determined further the following (1) Profile of the mild mentally retarded children as to age, gender and intelligent quotient; (2) the mean score of the learners in the

Pre-test and post-test; (3) significant difference in the pre-test and post-test mean score of the male and female learners; (4) post-test mean gain. The study also employed quasi experimental design using two levels, the pre-test and post-test technique. A total of six mild mentally children were involved through universal sampling. The pre-test and post-test scores were documented in a record sheet utilized as the research instrument. The statistical parameter utilized were the frequency and percentage distribution for the profile of the children, the mean for the pretest for the post-test mean scores and t-test for the significant differences in the pre-test and post-test mean score and mean gain. The findings of the study were as follows; there was a significant difference in the pre-test mean score between the male and female learners; mean gain consistently increased from session one to three. It was concluded in this empirical investigation, that null hypothesis of no significant difference in the pre-test mean scores and post mean scores between the male and female learners was rejected. Inductive questioning teaching technique was effective on the learning ability of mild mentally retarded children. Based on the findings of this study, the recommendations were geared towards seminars and workshops for teachers handling mild retarded learners on how to carry out inductive question teaching technique in teaching subjects in order to improve the learning ability of these children; for the government and the schools sponsors to increase funding to schools for the mild mentally retarded children in order to acquire more teaching and learning resources. Curriculum adaptation and modification to suite children wild mild mentally retardation from elementally level so that it becomes easier for the teacher to plan on how to teach and come up with appropriate teaching and learning strategies as per the need of each individual child; studies to be carried out in the future on the area of inductive questioning on the emotional stability of mentally retarded children.

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CHAPTER ONE

THE PROBLEM AND ITS SCOPE

Background of the Study

The concept of the mental is continually changing and these changes can be seen as a reflection of a change in the perspective of an individual with mental retardation based both on research and clear understanding of the issues involved in defining the concept. For example, the American Association on Mental Retardation (AAMR), a professional organization founded in 1976 recently drafted a new definition but also focused on the relations among capabilities, environment and functioning (Luckasson Coultier, Polloway, Snell, Spinalnick and Stark 1992). According to this definition, mental retardation refers to substantial limitations in present functioning. It is characterized by significantly sub-average intellectual functioning existing concurrently with related limitation, one, two or more of the following application adaptive skill areas; communication, self care, home living, social skills, community use, self direction, healthy and safety functioning academics, leisure and work. Mental retardation manifests before age 18 (Luckasson , Coultier, Polloway, Reiss, Schalock, Snell, Spinalnick and Sark 1992). In addition to the perception of mental retardation with respect to a person's functioning in daily life according to his or her practical, social and conceptual intelligence, the American Association on Mental Retardation (AAMR) list four essential assumptions to be carefully considered in the application of this definition. Without going a length elaboration of this definition it is important tom note that it has far reaching implication which have not been addressed. The more wide spread definition of mental retardation is the American Association on Mental Retardation sixth definition used in the American based Individual with Disabilities Education Act (IDEA).

Under individual disability Act (IDEA) mental retardation is defined as significantly sub-average general intellectual functioning existing concurrently with deficits on adaptive behavior and manifested during the development period

(Grossman 1983) that adversely affects a child's education performance. Significantly sub-average intellectual functioning is defined as a score that is at least two standard deviations below the mean on a test of intelligence based on American Association on mental retardation (Grossman, 1983) and diagnostic and statistics manual of mental of disorders(American Psychiatric Association, 1994) and using intellectual (10) tests scores, mental retardation occurs on the four levels of mild (score 50 through 55 approximately 70) moderate scores 35 through 40 to 50 through 55, severe score through 25 to 35 through to 40 and profound(20 through 35).

In Kenya a mentally handicapped child is one who has limited level of intelligence and deficits in adaptive behavior. The condition usually arises between conception and 18 years of age (Ministry of Education 1995) the Republic of Kenya (1995) in its handbook on how to handle children with special needs goes on to note that mentally impairments as mildly, moderately, severe, or profound handicapped or as educable, trainable, severe and profound in terms of their measured intelligence scores on IQ tests.

The classification of education and trainable are referred to by other(Bernie, Smith et al 1998) it would appear that definition of mental retardation in Kenya has some parallel with the individual with Disabilities Education Act definition used in the United states.

Given that their condition is in most cases never identified or recognized has a disabilities children with mild mental retardation in Kenya schools are educated with students without disabilities in regular schools and classrooms (Mutua and Dimitrov 2001) with no support, adaptations or modifications, students with moderate or server forms of mental retar4datioind are educated mainly in units in regular education schools and in special schools and residential settings for children with mental retardation (Kiarie 2006 and Mutua and Dimitrov 2001). One of the most controversial issues in special education at present is the extent to which

children with special needs whether mental or otherwise can and should be included in ordinary regular classrooms.

According to the United Nations education, scientific and cultural Organization (UNESCO) 1994 inclusion has become the most effective approach to address the learning needs of all students' regular schools and classrooms. International initiatives from the United Nations , UNESCO, and the World Bank and Non- governmental organizations jointly contributed to a growing consensus that all children have the right to be educated together regardless of their disability or learning difficulties and that inclusive education is a human right that makes good education and social sense.

The current thinking advocates educating the person with disability within the regular school community rather than segregating them in special schools except the very severe to profound handicapping conditions they have a right to lead signified lives and should be given every opportunity to compete on equal terms with non disabled children.

Statement of the Problem

Inspite of numerous efforts put forth by families, the skilled special education and mental health professionals, the individual with mental disability has one final challenge to meet in life which is social acceptance (Fregnut 2003). Today, mentally handicapped (MH) learners must be capable of gaining acceptance into a social structure that be cruel and rejecting at times. By definition the mentally challenged individual is marginalized from the mainstream society and entry into the world community places tremendous burden on their parents.

It is very likely to be denied access to the schools as they are deemed unlikely to benefit from any education or hidden away (Dorothy, 2003) by their parents. Even though parents may recognize education as a right for every child and rise above society's negative attitudes, they cannot require that schools open their gates to all children. Schools can still decide that some children are uneducable and therefore do not belong in the school environment. There are

bound to be challenged that schools faces in the effort to include learners with mental deficits into regular schools.

In inductive questioning make learning pupil centered. This method motivates the learners since the learners participate fully in answering question. The learners and these boost the knowledge and skills rentation.

On learning Ability of the mentally Retarded learners can be able taught when they are fully involved in learning activities. The teachers therefore should use the correct inductive question techniques so as to help the learners acquire knowledge and skills.

Purposes of the Study

The following are the reasons for this study:

1. To test the hypothesis of significant difference between the pre- test and post-test mean scores of the male and female learners.
2. To prove the theory of Piaget on cognitive development.
3. To generate new information from the existing body of knowledge on inductive questioning and learning ability.
4. To fill out the gaps identified in the previous studies and literature.

Specific: Research Objectives

General: To investigate the effectiveness of inductive questioning on the learning ability of the mentally retarded learners in Materi Special Unit in Tharaka District Kenya.

Specific: Further, this study sought to.

1. Determine the demographic characteristics of mentally retarded learners as to age, gender and category of intelligence quotient.
2. determine the mean scores of the learners in the

2.1 Pre-test

2.2 Post-test

3. Distinguish if there is a significant difference in the mean score of the learners in the pre-test and post-test mean gain.

Research Questions

This research sought to answer the following research questions.

1. What are demographic characteristics of the mentally retarded learners as to age, gender and category of intelligence quotient?
2. What are the mean scores in the pre-test and post-test?
3. Is there significant difference in the pre-test and post-test between the male and the female learners.
4. What is the post-test mean gain?

Null Hypothesis

There is no significant difference between the mean scores of the male and female learners.

Scope of the Study

Geographical Scope

The study was conducted in Materi Special Unit for mentally handicapped in Tharaka District Kenya.

Theoretical Scope

The study was based on Jean Piaget which postulates on thinking or information processing and task analysis. This theory deals with nature of knowledge itself and how come gradually to acquire and use it. The idea that cognitive development is at the centre of human organism and language is contingent on cognitive development. Assimilation occurs when human is faced with new unfamiliar information and refer to previously learned information in order to make sense of it.

Content Scope

The independent variable in this study was the inductive questioning and the dependent variable was the learning ability of the mentally retarded learners. Other

variables were as follows; demographic characteristics mean scores in the pre- test and post- test and post- test gain which served as the indicator of effectiveness of inductive questioning methods.

Time Scope

The study was done for three sessions within a period of three months (September 2011 - November 2011).

Significance of the Study

The finding of this will stimulate the teachers to design pedagogical intervention measures to improve teaching and learning of mentally retarded learners.

The study will be useful to various stakeholders in education such as the special need education teachers. They will develop the possibilities of discovery and independent thought among mentally retarded learners by using inductive question method instead of using other teaching method that have low impact on learning.

The administrators of special units will recognize the need of teaching of mentally retarded learners due to discovery and invention of new teaching and learning methods hence reducing isolation, abandonment, stigmatization, negative attitude and low esteem to mentally retarded learners.

Policy makers will be provided with empirical information with regard to the effect of inductive questioning method on the comprehension of mentally retarded learners. This will trigger them to come up with better modalities and policies that advocate for mentally retarded learners.

The Ministry of Education in its fight against poor teaching and learning of learners with disabilities in Kenya, will be provided with inputs from this study on ways to improve the teaching and consequently better performance in Kenya Certificate of Primary Education (KCPE). The future researchers can embark on a

similar study to further prove the effectiveness of the inductive question method on the of mentally retarded learners.

Operation Definition of Key Terms

For the purpose of this study, the following terms are defined as they are used in this study:

Inductive Questioning refers to the method of teaching that is used when the student is asked to infer a conclusion, generalization or pattern of relationships from a set of data or facts.

Learning ability is measured in the study through the pre-test and post-test mean score and mean gain.

Mentally Retarded Learners are students with limitations in intelligence or cognition and an impaired ability to learn

Post- test refers to the average mean score after the inductive questioning was applied.

Pre- test refers to the average mean score soon before the inductive questioning was applied.

Profile are the characteristics of the study participants in terms of age, gender and intelligent quotient.

CHAPTER TWO

REVIEW RELATED LITERATURE

Concept, ideas and opinions of authors/Experts

Inductive Questioning

Maztropier M. and Scrugg. E. (2003) suggests that children with mental retardation can learn and acquire knowledge and skill in order to perform duties well when teachers handling them value the little skills they already have and in bits build to complex ones. The mentally retarded learners can answer inducted questions from in bits from lower the level questions to high level questions when they are asked in bits to complex ones.

Obonyo (1980) suggest that in order to enhance teaching and learning a teacher must make use of effective teaching strategies and methods. Every teacher is faced with responsibility of selecting and designing suitable learning experiences to provide optional learning opportunities for the learners. The different mental abilities complicate the task. Some learners complicate the task. Some learners have high knowledge and interest in learning while others have low knowledge and interests and these due to their mental abilities. The age also vary for instance, the introduction of Free Primary Education (F.P.E) in Kenya in 2002, mentally retarded of varying ages were enrolled in primary schools which in turn lead to variation of ages in student. In primary schools you may find 10 to 20 years and this affect their learning abilities. The teacher is faced with the challenge of varying teaching approaches and methodologies together for difference in ages, abilities and knowledge of learners. Classrooms are often composed of learners from different backgrounds with different level of esteems of motivation and different mental abilities. This poses challenges to teachers and calls for variety of methods and approaches to teaching which incorporate the use of different teaching strategies and variety of resources.

The use of inductive question in teaching of mild mentally retarded learners is critical since it enables the learners to develop their intellectual and imaginative powers inquiry analytical and creative mind approach to last analysis. Inductive question method also improves their understanding and judgment, problem solving and ability to answer the questions. The use of inductive question strategy also enable the mentally retarded learners have good relationship with the teacher (rapport) within that makes learning motivating and enjoyable. The use of inductive question strategy also helps the teacher have schema of the subjects and the student reducing low esteem and poor quality of student-teacher rapport SMASE (2004).

Sprugue (1994) Opines that the teacher should choose an appropriate teaching strategy such that consideration is made on the learner's prior knowledge and practical experience on the topic. To make an impact teaching, mentally retarded learners change must take place in the classroom. Education has to do with the development of knowledge, intelligence and behavior. This teaching techniques that a teacher should adopt must meet the demand of the special learners. Therefore, the learners past experience and abilities is essential because the teacher would use to build new concepts. He should be able through guidance and counseling and discussion in classroom to remove any misconception among learners.

This is because some mentally retarded learners require more time to develop and mature intellectually. The teacher needs to bring about change in the classroom and use teaching aids that will certainly transform the comprehension of mentally retarded learners. Benjamin Bloom's idea of taxonomies objectives in the cognitive and effective domain advocate the idea that all learners will make better progress if they attain mastery of intended outcomes of each stage of learning. He further states that most student can attain a high level of learning capability if instruction are approached sensitively and systematically through task analysis.

In order for inductive question method to have an impact changes must take place in the society. Special unit should be set up to cater for mentally retarded learners. The environment which the learner and teachers are should be barrier free.

Mecee (2003) affirmed that lack of motivation in teaching and learning activities continues to be a problem in many countries of the world. The teaching approach which the special teacher adopts in the teaching of mentally retarded learners in special class/unit discourages or dislocates learners. That's why differences occur in performance, during evaluation/examination. Whereby the teachers use inductive question method and analysis the task into manageable bits and taught a pace a time the entire chain is mastered.

To think critically is to draw on both store and immediately available knowledge in making decisions. To act independently, is to initiate, carry out, and satisfactorily conclude activities both behavior are observable and they can be evaluated.

Learning Abilities of the Mentally Retarded

Gichuhi (1996) suggest that attitudes and subjects are not learned separately but simultaneously through rapport and complex interaction. He further says that the students with a positive attitude in class are likely to perform much better than those with negative attitude hence special need learners difference in performance academic work and co-curricular activities have been largely been attributed to negative attitude either toward the subject the teacher and the school. Some mentally retarded learners have low self esteem barrier to acquiring in learning and believe their disability may be barrier to acquiring knowledge and skills and this an attitudinal problem the teacher should help them correct through guidance and counseling and making learning more interesting, motivation and real to the mentally retarded and hence improve their comprehension and achievement in knowledge and skills.

The teachers take the initiative of guiding, counseling and encouraging mentally retarded learners who suffer from stigmatization, low esteem and negative attitude towards learning. The teachers ensure use of variety teaching and resources hence getting motivated and interest in learning. Mentally retarded learners must be given opportunity to participate fully and express themselves and these may boost positive attitude towards learning.

According to Fennema and Sherman (1976), the teacher should motivate and encourage development of positive among male learners by making the lesson interesting and involving all the learners both boys and girls in participation. This leads to improvement in comprehension.

Theoretical Perspective

This study was based on Jean Piaget's, thinking or information processing task analysis. According to Jean Piaget, children work with very particular processes like working memory in order to trace development without over reaching broad stages as developed using research with mentally handicapped children. Most children with developmental delays and intellectual disabilities need to be evaluated and see what they are in and then go far from there.

Jean Piaget theory deals with cognitive theory of questions related to thinking and knowing. Thinking or information processing involves task analysis. The theory of cognitive development can be understood in terms of why and mental abilities change over time. According to Jean Piaget development depends on the child's manipulation and active interaction with the environment.

In Piaget's view, intelligence consist of two interrelated process. Organization and adaptation, Piaget referred to the basic ways of organizing information as schemas. A schema is a cognitive frame of response through which we interpret and act on new information. A schema is used to find out about the world and act on it. Each schema treats all the objects and events in the same way. The schema however adapt in response to the environment. This takes form of

assimilation and accommodation. Assimilation involves the process of understanding a new thing in terms of existing schema. Inducting of mentally retarded enables in to build schemas and this enables to learn about the unknowns when asked inducted questions.

Accommodation involves the modification of an existing schema to learn about the unknown and fit new information or experience. In relation to the topic of study, all mentally retarded learners will make better progress in learning abilities if they will manipulate their fully active interaction with the learning environment.

Related Studies

Debbie Tipton (2002) suggests the mentally retarded should not be subjected with question. He argues that question leads to comprehensive failure in cognitive development. For instance, the question could be ambiguous hence leading to getting wrong information and answers. He also found out that question could not have enough clues that are required in a certain topic.

Maztropier, M. and Scrugg, E. (2003), contented in this study that children with mental retardation can learn and perform self help skills and not academic work through individualized education program. They argued that due to their mental abilities it is advisable only to learn activities that make them self-reliance in the society. Disability hinders them from participating learning academic work.

Ndurumo, M.M. (1992) reported that while studies show that mentally retarded girls and boys in pre-school were on an equal footing by 20%, the girls were generally higher in cognitive abilities than their male counterparts.

Goldstein (1974, in his observation reported education for mild retarded child provides necessary training in social adaptive behaviors. Most important is the need to recognize that the knowledge and behaviors essential for academic success will not necessarily bring success in adult society. Some knowledge and behaviors correlate highly with acceptable social performance whereas others do not. Adequate

social adaptation comes from a combination of school –learned aptitudes and skills with what learned at home in the neighborhood and elsewhere. The long –range education objective or special children are the same as for all other children; that they learn to think critically and to act independently.

Summary of gaps to bridge

- 1) In the previous studies concentration was on inductive questioning specifically enables learners to develop their intellectual and imaginative powers in inquiry analytical and create mind approach to last analysis but in this study inductive questioning dealt with topics on colours, numbers and weather.
- 2) Authors like Sprague studied inductive questioning but did not consider the variable of learning ability which as been considered in these study.

CHAPTER THREE

METHODOLOGY

Research Design

The study employed the quasi experimental design particularly the pre-test and post- test technique. The quasi experimental design has these characteristics: manipulation, randomization and natural setting.

The manipulation in this study was the inductive questioning. Randomization is unbiased selection of the subject the study universal sampling was used instead due to the depth and nature of the subject

Table 1

Experimentation Details

Pre-Test				Post-Test		
Session	Day	Time	Subject/Topic	Day	Time	Topic
1	Tuesday	10.15 am	Science Topic: Colours	Monday	11.15am	Science Topic: Colours
2	Wednesday	9.35 am	Mathematics Topic: Numbers	Tuesday	10.15 am	Mathematics Topic: Numbers
3	Friday	11.15 am	Social Studies Topic: Weather	Thursday	9.35 am	Social Studies Topic: Weather

Research Population

Target population

The study included a target population of mentally retarded learners in Materi Special Unit.

Sample Size

Competition for the minimum sample was not applied since there were only mentally retarded children in the unit.

Sampling Procedure

This study utilized the purposive and universal sampling to select the mentally retarded learners using the following criteria:

A. Inclusion criteria

1. Mentally retarded children with an IQ 55 – 70 mild.
2. Either male or female.
3. The mentally retarded taught in the special unit of Materi.
4. With aged 10-16 years old.

B. Exclusion criteria

1. Mentally retarded children with IQ below 55 who are severe mentally retarded.
2. The mentally retarded who were not in the special unit.
3. Aged below 10 years and above 16 years old.

Research Instrument

The research instrument utilized was a researcher devised record sheet.

Validity and Reliability of the Instrument

The researcher used all the actual testing of the record sheet was done and no flown so far were noted in the use of the checklist.

Data Gathering Procedures

Before data gathering

1. An introduction letter from the college of Higher Degrees And Research (CDHR) was addressed to Materi Special Unit to solicit permission to conduct the study.
2. Permission was obtained from the head teacher for the researcher to conduct the study in class.
3. The subjects for experimentation were identified and inductive questions were formulated.

During data gathering

1. Table 1 in experimentation details were strictly followed.
2. The pre – test and post – test was conducted and the scores were recorded as accurately as possible by the researcher.

After data gathering

The pre – test and post – test were organized and processed to statistical analysis in answer to the specific objectives of this study. The tables were constructed to contain the relevant data.

Data Analysis

The frequency and percentage distribution was used to determine the profile of the student under study. The mean was used to determine the mean scores in the pre – test and post – test; significant differences and the post-test mean gain were computed using t-test.

Ethical Considerations

The following ethical standards were practiced during the experimentation as follows;

1. Permission was first sought through an introduction letter from CHDR and from the head teacher before experimentation.
2. Students were also informed that they would be to participants of the experimentation.
3. Informed consent was secured from the student participants.
4. The learners also assured of confidentiality and that the experimentation was for academic purposes only.
5. The learners were also assigned code numbers in the list to ensure anonymity.
6. Authors mentioned in this study were acknowledged through citations and referencing.
7. The findings were presented in a generalized manner.

Limitation of the Study

Extraneous variables such as moods and mental stability of mentally retarded children were beyond the researchers control.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA.

This chapter presents the data, statistical analysis in tables and interpretation of the data after the tables.

Profile of the Student

Table 2 reflects the profile of the student participants in terms of gender and intelligent quotient.

**Table 2:
Profile of the Learners
n = 6**

Major category	Sub category	Pre-test group		Pos-test group		Totals
		Frequency	Percentage	Frequency	Percentage	
Class		6		6		6
Age						
10 years						
11 years		2	33.33	2	33.33	2
12 years		3	50.00	3	50.00	3
13 years		1	16.66	1	16.66	1
15 years		-	-	-	-	-
16 years		-	-	-	-	-
Total		6		6		6
Gender	Female	2	33.33	2	33.33	2
	Male	4	66.67	4	66.67	4
Total		6	100	6	100	6
		marks	male	female	male	Female
Previous Academic performance		50-79	1		16.67	
		20-49		2		50.00
		0-19	3		33.33	

Source: Primary data

Legend for grading system

A=80-100

B= 50-79

C=20-49

D=0-19

Score	Letter Grade	Interpretation
80-100	A	Excellent
50-79	B	Satisfactory
20-49	C	Unsatisfactory
0-19	D	Poor

The previous academic performance for the class was 24.7%. The mean standard score revealed that these children performed below average with reference to grading.

Table 2 also reveals that the number of female children more than number of male children 66.67% more than half learners were at the 12 years

Table 3

Table 3: Mean scores in the pre-test and post-test for the Special Unit class

Session	topic	Test		Mean scores	
		Pretest	Post test	pretest	Post test
	Colours	1	1	6.25	8.75
	numbers	2	2	7.25	8.90
	Weather	3	3	4.80	6.30
Average mean				6.10	7.98

The mean scores in the pretest and post test are shown in table 3. The researcher obtained the mean scores after administering pre test and post test examinations for three sessions. The post test mean scores were 8.75, 8.90 and 6.30 whereas the pre test mean scores were 6.25, 7.25 and 4.80. the trend in the table 3 reveals that there is an increase from the pre test score to the post mean scores.

Table 4

Significant Difference in the Pre-Test and Post-Test Mean Scores between Male and Female Students in the Class.

category	Mean gain
Between pretest 1 and post test 1	2.50
Between pretest 2 and post test 2	1.65
Between pretest 3 and post test 3	1.50

Table 4 reveals that the pre test and post test mean gain of the pupils decreases gradually from session 1 to 3 respectively. Although there was a gradual decrease in the mean gain after manipulation of inductive questioning method, there was always a positive gain in all these three sessions. From the finding it might be suggested that some topics/ unit were difficult to the pupils. The topics were divisions, weather, time and reproduction.

Table 5

Significant difference in the mean scores of mildly mentally retarded learners in the pre-test and post –test

Category	Computed t-values	Critical t-value	Interpretation of difference	Decision on H0
Test				
Pre Vs post	4.385	0.321	No significant difference	Reject

NB: If the significant value is equal or less than 0.05 level of significant, the interpretation is **significant** if the significant value is more than 0.05 level of significant, the interpretation is not significant.

The results findings indicated that there was no significant difference between the pre and post test results of the first test $p = (0.312)$. This was interpreted to mean that results before and after teaching did not impact on the marks that the student attained after test one. The difference in the performance was negligible. As a result the null hypothesis stating that there is no relationship between the pre meant that there still was a relationship of the way the student were performing before and after the test. Poor results were therefore evident before and after the test as the difference in their means before and after the test was negligible.

CHAPTER FIVE

FINDINGS, CONCLUSIONS, RECOMMENDATIONS.

This chapter presents the summary of findings, in answer to specific objectives. The conclusions are drawn from the findings with in the context of the purpose of this findings. The recommendations are based on the findings of this investigation.

FINDINGS

The findings of the study were as follows;

A. Profile of the Respondents

1. Majority (80%) of the students were 11 years old.
2. More than half (66.67%) of the learners participants are were male.
3. The special unit class was composed of mild mentally retarded with IQ learners range 55 – 70.

B. Mean Scores in the Pre–test and Post- test.

The learners attained higher marks in post-test than in the pre-test.

C. Significant difference in the pretest and post test means scores and mean Grain.

There was a significant difference between the pretest and post test mean scores. There was decreased the mean gain from the session 1 to 3 (2.50 1.65, 1.50) and average means (6.10 to 7.98)

CONCLUSIONS

From the findings of the study, the following conclusions were drawn. Inductive questioning method was effective on the learning of the participants. Inductive questioning increases on the learning abilities of learners.

This teaching method enables the learner to create rapport with the teacher and as a result learners get motivated and enjoy learning. Nicholls (1993) opines that teachers should plan his/her lesson such that consideration is made on the learner's prior knowledge and experiences on the task. The teacher should come up with changes in the classroom and use variety of teaching strategies that will certainly transform the mentally retarded learners.

In this study, various gaps were bridged in that inductive questioning increased learning performance among the mild mentally retarded learners.

RECOMMENDATIONS

Based on the findings of the study, the following are recommended for future studies;

1. That the special units school administrators in the District should strive to allocate sufficient funds for training more teachers in modern teaching strategies particularly on how to deal with mentally retarded learners.
2. The Ministry of Education should sponsor trainings to enlighten the stakeholders like Head teachers and special needs teachers.
3. Targeting and identification of learners with mild mental retardation should particularly start at pre-schools.
4. Parents should be fully involved in the learning process of their children since they are the early starter of socialization. They should participate in raising finances to buy learning and teaching resources for the institutions.
5. The future researchers can embark on the following studies:

- 5.1 Inductive Questioning on the emotional stability of of the mentally retarded children
- 5.2 Teaching approaches on the cognitive development of the mentally retarded learners.

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APPENDICES

APPENDIX I

TRANSMITTAL LETTER A



**KAMPALA
INTERNATIONAL
UNIVERSITY**

Ggaba Road - Kansanga
P.O. Box 20000, Kampala, Uganda
Tel: +256- 41- 266813 / +256- 41-267634
Fax: +256- 41- 501974
E- mail: admin@kiu.ac.ug,
Website: www.kiu.ac.ug

**OFFICE OF THE CORDINATOR OF EDUCATION
SCHOOL OF POSTGRADUATE STUDIES AND RESEARCH (SPGSR)**

August 23, 2011

Dear Sir/Madam,

**RE: REQUEST FOR ANDERSON CHARLES MUGAMBI MIRITI
MSNE /15745/102/DF: TO CONDUCT RESEARCH IN YOUR ORGANIZATION**

The above mentioned is a bonafide student of Kampala International University pursuing a Masters of Education in Special Needs Education.

He is currently conducting a field research of which the title is **"Inductive questioning on the Learning Ability of the Mentally Retarded Children in Materi Special Unit, Tharaka District, Kenya."**

Your organization has been identified as a valuable source of information pertaining to his research project. The purpose of this letter is to request you to avail him with the pertinent information he may need.

Any information shared with him from your organization shall be treated with utmost confidentiality.

Any assistance rendered to him will be highly appreciated.

Yours truly,

Ms. Kyolaba Sarah
Coordinator Education, (SPGSR)

Appendix I B:
TRANSMITTAL LETTER B

Dear Pupils,

RE: PERMISSION TO CONDUCT OUT RESEARCH

Please receive my sincere greetings. May I request permission to conduct in your class and experiment on INDUCTIVE QUESTIONING. The data to be collected will be used for research purpose and only the data you provide will be treated with utmost confidentiality.

Thank you in advance

Yours faithfully,

ANDERSON CHARLES M. MIRITI

MSE/15745/102/DF.

APPENDIX II:

CLEARANCE FROM ETHICS COMMITTEE

Date_____

Candidates Data

Name _____

Reg. no. _____

Course _____

Title of the
study_____

Ethical Review Check List

The study reviewed considered the following:

- Physical safety of Human Subjects
- Psychological safety
- Emotion security
- Privacy
- Coding of Questionnaires/Anonymity/Confidentiality
- Permission to conduct the safety
- Informed consent
- Citation / Authors Recognized

Results of Ethical Review

- Approved
- Conditional (to provide the Ethics Committee with corrections
- Disapproved/Resubmit proposal

Ethics Committee (Name and Signature)

- Chairperson
- Members

APPENDIX III:

INFORMED CONSENT

I am giving my consent to be part of the research study of Mr. ANDERSON CHARLES M. MIRITI that will focus on the Inductive questioning on the learning ability of mentally retarded children in Materi Special Unit.

I shall be assured of privacy, anonymity and confidentiality and I will be given the option to refuse participation and right to withdraw my participation any time.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials:

Date:

APPENDIX IV

FACE SHEET PROFILE OF THE RESPONDENTS

CODE _____

AGE _____

GENDER _____

MALE _____

FEMALE _____

Intelligence Quotient _____

GRADE _____

APPENDIX IV
RECORD SHEET

SESSIONS	STUDENT NUMBER	PRE-TEST SCORES	POST-TEST SCORES
1			
2			
3			

2008 to date: Matiri Special Unit.

AWARD

Award certificates of merit as a handball coach/referee and scouting patron.

FUTURE PROSPECTS

To be able to secure a place in an organization where I can participate in making policies that advocate for special needy people.