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Early Identification of Learning Disabilities among Standard Three Pupils of Public Primary Schools in Butere District, Kenya

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Abstract

Learning Disability is a condition in which children who though appear 'normal' are unable to perform commensurate with their age and ability levels due to a basic psychological problem. The purpose of this study was to investigate selective factors that influenced early identification of children with learning disabilities amongst standard three pupils of Butere District, Kenya. The study was based on ex-post facto design. The socio-cultural theory formed the theoretical foundation of the study. A sample of 25 public primary schools was drawn from the total population of 126 public schools. Thirty seven standard three teachers and twenty five head teachers from the twenty five sampled schools formed the sample population. Questionnaire and interview schedules were used to collect data. Descriptive statistics used included; frequencies, means, modes and standard deviations. Inferential statistics such as the chi-square and Pearson Product Moment Correlation were used to test the hypotheses of the study. Most teachers were not trained in special needs education and handled very large classes of above 60 pupils. There was also a significant relationship between teacher-pupil ratio. To enhance early identification of learning disabilities there is need to train more teachers in Special Needs Education.

Keywords: early identification, learning disabilities, special needs education, early intervention, determining eligibility and mathematics computation

INTRODUCTION

Learning Disability is a condition in which children who despite appearing 'normal' are unable to perform commensurate with their age and ability levels due to a basic psychological problem. This psychological problem causes a discrepancy between the child's achievement and their actual intellectual ability in; oral, listening comprehension, reading and written expression skills. Due to this children with learning disabilities require specialized education (Chadha, 2001; KISE, 2002).

Children with Learning Disabilities also seem bright, enthusiastic and with the potential to perform well in education just like their peers of the same age. They perform well in most subjects but for some unexplained reasons fail in specific areas of Maths (Maths reasoning and Maths calculation/ computation). They also fail in language (oral language, listening comprehension, reading comprehension, basic reading skills and written language) unlike other children of the same age and ability even when given same learning opportunities (Chadha, 2001; Learner, 2006). Seventy percent (70%) of children who have learning disabilities experience learning difficulties in language areas while 26% experience difficulties in maths (Cass, 2003, Learner, 2002 ; 2006 ; Lyon, 2001). The causes for learning disabilities are not clear. Some people argue that it is intrinsic and others say it is extrinsic. The basic processing disorder could be attributed to pre, peri and post-natal factors such as; mothers use of unprescribed drugs, contracting Rubella/German measles when expectant, anoxia or injury incurred during delivery and malnutrition after birth (Chadha, 2001; K.I.S.E, 2002). Learning disabilities have several negative implications on the child's development. To begin with, a child with learning disabilities performs poorly and develops low self esteem. According to Woolery & Bailey (2003) the child becomes disenfranchised because his/her educational needs are not adequately met in the education services. The disability is a probable cause for the high drop-out rate among primary school children.

However, research studies indicate that early identification and intervention of learning disabilities have good results. To begin with, early identification and intervention of learning disabilities leads to a seventy percent recovery/rehabilitation of the children at risk. The child who gets early intervention

of learning disabilities will have good future academic outcomes. (Jones, 1986; Scholl, 1986; Vaughn & Fuchs, 2003).Early intervention will also lead to improved academic performance and enhances the child's self esteem and a positive self concept. Eventually, a child with learning disabilities who receives early intervention is brought back to their successful academic and career journeys (Jones,1986 ; Morris, 2003 & Weinberg, 1978).

In the US, some studies indicate that there are some impediments to the successful identification of children with learning disabilities in the U.S. These include; discrepancies in determining eligibility for learning disability, training status of most teachers in the regular schools in special needs education, high teacher-pupil ratios, policies and practices, the language used for instruction, intervention strategies and the methods used for instruction (Lyon, 1996).

In Kenya, the literature reviewed indicated that there is misidentification of LD and reports that the category is seen as a "catch all" for any youngster who is not meeting the expectation of parents and teachers. Nonetheless, there are studies indicating the efforts being made by the Government of Kenya to offer early identification through assessment and intervention to children with various kinds of disabilities. This can be inferred from the numerous commissions of education established to look into issues pertaining to disabilities from independence to date (KISE, 2002; 2008).

It is against this background that the researcher sought to find out factors that influenced early identification of learning disabilities amongst standard three children in public primary schools of Butere District, Kakamega County Kenya.

METHODOLOGY

The study targeted standard three teachers and head teachers from the 126 public primary schools found in Butere district. The research study adopted the Social Cultural theory of Lev Vygotsky which suggests that children's development depends on interaction with significant people to the child and the cultural tools provided to them especially language (Vygotsky, 1978). The study employed an ex-post facto research design to analyze and understand relationships among the variables. The descriptive survey was supposed to yield statistical information about aspects of early identification of learning Disabilities that are of interest to education policy makers (Borg and Gall, 1989). 25 schools were selected from the four educational zones using stratified and systematic sampling methods. Head teachers and class three teachers from the sampled schools of the four zones formed the sample population. This study involved the use of questionnaires and interview schedules aimed at gathering relevant data on early identification of learning disabilities. The data was collected through questionnaires for standard three teachers and interview schedules for head teachers. Content validity was used to test the validity of the instrument. Content validity was catered for by constructing all the important items on the research instrument and ensuring that all objectives of the study covered in the instrument. The internal consistency of the instruments was tested by the test – retest method. The reliability of the research instrument was tested by administering the same instrument twice to the same group of subjects in a span of two weeks (14days) time lapse between the first and the second one.

Both qualitative and quantitative methods were used to analyze the data. Descriptive statistics calculated include: Frequencies, means, percentages, standard deviations, modes and median. Inferential statistics calculated were: Pearson Product Moment Correlation and Chi-Square. Pearson product moment correlation was used to test hypotheses H_1O and H_3O. Null hypothesis H_2O was tested using Chi-Squire.

RESULTS

Results were on the objectives and hypotheses as shown below;

H_1O: There is no significant relationship between Early Identification of Learning Disabilities and Training in Special Needs Education.

Findings related to hypothesis one are presented in table 1.

Table 1: Teacher Training in Special Needs

Position	Level of training in special needs	Frequency	Percent
Teacher	Not trained	26	92.9
	Diploma	1	3.6
	Degree	1	3.6
	Total	28	100.0
Head Teacher	Not trained	21	84.0
	Certificate	2	8.0
	Diploma	1	4.0
	Degree	1	4.0
	Total	25	100.0

Table 1 show that Ninety three percent 93% (26) of class three teachers had not been trained in Special Needs Education. A further Eighty four percent 84% (21) of head teachers had also not been trained in special needs education. This meant that most of the teachers lacked the necessary knowledge, skills and attitudes to help them identify Children with Learning Disabilities. Further statistical analysis was done to find out the relationship between Teacher Training in Special Needs Education and Early Identification of Learning Disabilities. Hence the following hypothesis was formulated and tested;

H_1O: There is no significant relationship between Early Identification of Learning Disabilities and Training in Special Needs Education.

The researcher used Pearson Product Moment Correlation to determine whether there was a statistically significant relationship between Teacher Training in Special Needs Education and Early Identification of Learning Disabilities.

The question to be answered was: Is Training in Special Needs Education Significant in Identification of Children with Learning Disabilities?

Table 2: Correlations between level of training and early identification of learning disabilities

		Percentage of Identified cases of disabilities
Level of Training in special needs education	Pearson Correlation	-.034
	Sig. (2-tailed)	.817

Table 2 shows that the correlation coefficient was -0.034. The level of significance was 0.0817. The results implied that the relationship between Teacher Training in Special Needs Education and early identification of learning disabilities was negative, weak and the null hypothesis was accepted.

The findings of this study seemed to contradict the study on the importance of training in special needs education in early identification of learning disabilities. Other studies on the factors that influence integration of learners with special needs into regular primary and secondary schools revealed that trained teachers enhanced integration of learners with special needs into regular schools than the untrained teachers (Lyon, 2001; Omurwa, 2007). In addition, studies investigating the relationship between knowledge on nutrition and nutrition practices, found out that teachers who had undergone training in nutrition practiced nutrition activities more than teachers who had not received any training (Muting'au, 2006). This meant that training is important in enhancing early identification of learning disabilities.

Table 3: Teacher-pupil Ratio

Teacher-Pupil Ratio	Frequency	Percent
1:50	24	38.7
Over 1:50	38	61.3
Total	62	100.0

Table 3 shows that the majority of the respondents 62% (38) were handling over 50 children per class. This meant that teacher–pupil ratio was way above the stipulated government required ratio of 1:40.
Further statistical analysis was done to find out whether there was any significant relationship between the number of children a teacher handles per class and early identification of learning disabilities. Hence the following hypothesis was formulated and tested:

H_2O: There is no significant relationship between early identification of learning disabilities and teacher–pupil ratio.

The researcher used Chi-square to find out whether there was a significant relationship between early identification of learning disabilities and teacher-pupil ratio. The Chi-square results of this hypothesis (H_2O) are in Table 4.

Table 4: Relationship between pupil-teacher ratio and Early Identification of Children with Learning Disabilities

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.336(a)	20	.014

Table 4 shows that the Pearson Chi Square correlation coefficient was 0.14. The result implies that the null hypothesis which states that there is no significant relationship between early identification of learning disabilities and teacher–pupil ratio was rejected. This means that the more children a teacher handled per class the fewer the chances of identifying children with learning disabilities.

The findings of this study are supported by other research studies which revealed that the fewer the number of children a teacher handled the closer the interaction and hence the easier the task of identifying children with learning disabilities. This is supported by other studies which established that teachers who handled fewer children in class succeeded most in integration than those teachers who handled more children per class. The Ministry of Education requires teachers to handle fewer children at the ratio (1-30) per class for disabilities like learning disabilities and even lower for disabilities like mental handicaps (Lyon, 1996, 2001; MOE, 2006 ; Omurwa, 2007).

However, as shown in Table 4 this study revealed that most teachers handled as many as 60 children per class. This meant that the quality of education being offered was wanting because teacher-pupil ratio is an important determinant of quality of education. It has been suggested that the high teacher-pupil ratio is as a result of HIV/AIDS pandemic (Desai, 2005; UNESCO, 2005). A new study in Kenya has revealed that HIV/AIDS has considerably exacerbarated teacher turn over rates and placed a significant strain not only on Ministry of Education but also on human resource requirements by doubling the mortality rates.

Therefore, because teachers are prime movers in the achievement of EFA Goals and MDGs, there is need to hire more teachers to lower the already high teacher-pupil ratio. This will bolster a closer teacher-pupil interaction in learning and thereby enhance not only early identification but also early intervention of learning disabilities (Boler, 2003). A small class is easy to manage besides having a close contact with the learners which is an essential ingredient in early identification of learning disabilities. The learning disabilities identified may have been as a result of the assumption that any child showing any difficulty in maths or languages had learning disabilities.

Table 5: Rate of teacher–parent interaction over the child's work

Position		Mean	Std. Dev
Teacher	I inform parents about their children's strength and weakness	3.000	.866
	I discuss with parents how to support their children's education	3.182	1.044
	I give children homework and expect parents to assist children and sign the children's books	2.812	1.330
	I use newsletter or notes to communicate with parents over their children's academic work	2.030	.918
	I discuss the children's report card with the parents	2.970	1.015
	I raise my concerns with the parent over the children's areas of learning difficulties	3.121	1.083
	I educate parents on how children grow to enable them note any deviation	2.813	.998
	I discuss with parents on how to help children in reading, writing and doing maths	2.710	1.131
	I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities	2.273	1.126
	I listen to parents concerns about their children's learning needs	3.667	.736
	Overall Mean for Teacher Parent Interaction	2.864	.652
Head Teacher	I inform parents about their children's strength and weakness	3.385	.752
	I discuss with parents how to support their children's education	3.667	.832
	I give children homework and expect parents to assist children and sign the children's books	2.680	.988
	I use newsletter or notes to communicate with parents over their children's academic work	2.192	1.201
	I discuss the children's report card with the parents	2.800	.957
	I raise my concerns with the parent over the children's areas of learning difficulties	3.577	.703
	I educate parents on how children grow to enable them note any deviation	3.750	.676
	I discuss with parents on how to help children in reading, writing and doing maths	3.154	1.255
	I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities	2.731	1.373
	I listen to parents concerns about their children's learning needs	4.038	.871
	Overall Mean	3.168	.605

Table 5 shows that the overall mean for the teachers' parent interaction was 2.8 while that of head teachers was 3.2. The results imply that the teacher –parent interaction over the child's academic work was low or less.

Further statistical analysis was done to find out the relationship between teacher–parent interaction and early identification of learning disabilities. Hence the following hypothesis was formulated and tested.

H_3O: There is no significant relationship between early identification of learning disabilities and teacher–parent relationship.

The researcher used Pearson Product Moment Correlation to determine if there was any significant relationship between teacher-parent relationship and early identification of learning disabilities and results are presented in Table 6 below.

Table 6: Relationship between teacher-parent interaction and early identification of children with learning disabilities

		Parent - Teacher Relationship
Percentage of Identified cases of disabilities	Pearson Correlation	-.229
	Sig. (2-tailed)	.114

Table 6 shows that the correlation coefficient was -.229. The level of significance was .114. Insignificant negative correlation ($r = - 0.229$) and ($p = 0.114$). The results show that the relationship between early identification of learning disabilities and teacher-parent relation was not significant. The null hypothesis was therefore accepted.

The findings of this study did not agree with other studies which sought to investigate if teacher-parent relationship had any importance on children's academic work. The study revealed that teacher-parent relationships were important in improving the child's academic work. Other studies revealed that teacher-parent relationships bridged home-school gap and in turn improved the child's academic scores and how teacher-parent relationship influenced teacher-child interaction, established that children whose parents had good relationship with the teachers, were treated well and performed better in their academic work too (Cowan, 2005, Gakii, 2003, Learner, 2006 ; Mcwayne, 2004).

Therefore, there is need to formulate policies that will promote more quality interactions between parents and teachers over their children's education in order to enhance/facilitate early identification of learning disabilities and also to realize the EFA Goals and MDGs.

In conclusion, it was established that a large number of children in the earlier grades experience learning difficulties. However, early identification leading to early intervention causes significant recovery socially, educationally and economically both to the child and society

CONCLUSION

The findings of this study reveal that about 24% of standard three pupils from the sampled schools have learning disabilities. However, most teachers lacked training in special needs education. Moreover, the classes were crowded and high teacher-pupil ratio. This makes successful early identification and intervention of learning disabilities a far dream. Therefore, to achieve the MDGs and EFA Goals, there is need for the Ministry of Education to train more teachers on specific skills of special needs education and employ more teachers so as to lower the high teacher-pupil ratio. Parents to monitor their children's growth and learning to identify any learning disabilities, and thereafter offer early intervention. Scaffold and support children whose performance either in maths or language seems to differ from their expected potential to enable them excel in their academics like their peers. Establish parents' information centers and support programmes to empower parents in supporting the education of their children with learning disabilities so as to cope with the stigma of having a child in need of Special Needs Education. Universities to conduct further research on children with learning disabilities. To enhance early identification and intervention of learning disabilities. Develop ideal assessment tools to offer early identification and interventions to children with learning disabilities to enable them succeed in their education and future life like their peers and curriculum developers to develop ideal assessment tools to offer efficient early identification of learning disabilities. Develop teaching programmes and teaching/learning materials to enable teachers scaffold children with learning disabilities and make them excel in their academics like their peers whereas teacher training colleges should equip teacher trainees with ideal skills and knowledge to offer early identification of children with learning disabilities and train teachers to offer effective early intervention of learning disabilities to enable these students succeed in their academics like their peers.

LIMITATIONS OF THE STUDY

The limitations of this study included; finances, limited time to conduct the study and nature of the disability that was not restricted to the special schools only unlike the other forms of disabilities. Most schools were overcrowded and therefore, teachers were overwhelmed by large numbers hindering close interaction between teachers and pupils for effective identification of learning disabilities.

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