

TEACHING LEARNERS WITH DYSGRAPHIA IN PRIMARY SCHOOLS IN EMBU COUNTY, KENYA: IMPLICATIONS FOR EDUCATIONAL INTERVENTIONS

By

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Abstract

The aim of this study was to identify challenges that teachers encounter in teaching Learners with Dysgraphia in primary schools in Embu County. This was to find out teachers' competency in teaching learners with Dysgraphia, to establish academic related challenges caused by dysgraphia; to identify the assessment procedures for learners with Dysgraphia. The study was based on Maturational theory and the literature was reviewed under perspective of LD, characteristics of dysgraphia; instructional materials for learners with dysgraphia; effects of dysgraphia on academic performance of the learner and interventions for dysgraphia. The study adopted a descriptive survey design which was conducted in 4 primary schools from Manyatta Division in Embu County. The target population included the class teachers, the head teachers, learners with dysgraphia from the sampled schools and EARC Co-coordinator. The sample size included 4 head teachers, 4 class teachers, 1 EARC Co-coordinator and 220 pupils. Data was collected using questionnaires for the class teachers, observation schedule to learners identified with characteristics of dysgraphia and interview guide for head teacher and EARC Coordinator. A pre-testing of the research instruments was done to establish reliability and the validity. Quantitative data was analyzed using statistical package for social sciences (SPSS) while themes were organized for qualitative data. The results show that 75 percent of teachers lack instructional materials that cater for LD. Only 25 percent of teachers can identify cases of LD and give special attention. Lack of standardized tools for assessment at the EARC center may have led to poor identification and placement of LD. The researcher concluded that learning of the learners with dysgraphia is inadequate and this has been contributed by; lack of enough teachers trained in LD to identify learners with dysgraphia and apply appropriate teaching strategies, inadequate instructional materials that cater for LD and lack of standardized tools for assessment at the EARC center. The study recommends that the Ministry of Education should oversee special education training to all education officers and teachers. The EARC centers to be equipped with standardized tools for quality assessment of LD cases and teachers to be provided with instructional materials that cater for LD.

KEY WORDS: Dysgraphia, Learning disability, Individualized Educational Program, Assessment and EARCH

Introduction

Missouri Developmental Disabilities Resource Centre (MDRC 2010), defines Dysgraphia as a learning disability (LD) that affects a person's ability to write. The term learning disability is the name for a group of disorders that affect a person's ability to listen, read, write, speak or do mathematics. People from all races and income levels can be born with a learning disability. This does not mean they lack intelligence. Some people with LD are even smarter than some of those who do not have (MDDRC, 2010).

Marentette (2011), views dysgraphia as a deficiency in the ability to write, primarily in terms of handwriting but also in terms of coherence. It occurs regardless of the ability to read and is not due to intellectual impairment. Further, he explains that dysgraphia is a transcription disability, meaning that it is a writing disorder associated with impaired handwriting, orthography in the storing process of written words and processing the letters in those words and finger sequencing (the movement of muscles required to write). Dysgraphia often overlaps with the other learning disabilities such as speech impairment, attention deficit disorder or developmental co-ordination disorder.

Wright and Wright (2008), suggest that diagnosing dysgraphia and related LD is important since without diagnosis, children may not receive early intervention or specialized instructions in all the relevant skills that are interfering with their learning of written expression, considering that many schools do not have systematic, instructional programmes in handwriting and spelling. It is also important to determine if a child with dysgraphia may also have dyslexia and require special help with reading or oral and written language (OWL).

Children with disabilities have a right to quality education and achieve their goal like their peers without disabilities. The Salamanca statement and framework for Action on Special Needs Education (UNESCO, 1994), the right of every child to an education was proclaimed in the universal declaration of Human Rights and was reaffirmed by the World Declaration on Education For All (EFA).

Statement of the Problem

Despite the efforts by the government, various NGOs and all parties that are concerned to provide Special Needs Education to learners. Some categories of disabilities including dysgraphia have not been adequately addressed in Kenya. Study findings by Kinyua (2008) on LD reveals that learning disabilities including dysgraphia are major challenges in Kenya. The government has been putting more emphasis on other categories of disabilities such as visual impairment, Physical disabilities, Hearing Impairment and intellectual disabilities but there are no guidelines from the Ministry of Education specifying clearly how children with dysgraphia ought to be handled in the regular classroom. Rasugu (2010) indicates that children with LD are labelled as hard to teach, lazy, slow learners and careless. This is regrettable because such children have been observed to have incredible talents that are generally undervalued or not well represented in the school curricula (Lerner, 2000). The Ministry of Education (MoE) need to recognize dysgraphia as a special need and hence be accorded the attention it deserves in order to provide necessary support for such learners.

Several studies have been conducted in Kenya on learning disabilities. However, the researcher did not find any study solely done on dysgraphia. Rasugu's (2010) study on nature and prevalence of LD suggests for a study to explore the teaching-learning of learners with LD, it is on this ground the study on challenges in teaching learners with dysgraphia was conducted.

Purpose and Objectives

To identify challenges in teaching learners with Dysgraphia, Embu County, Kenya and to establish intervention measures that may alleviate the problems encountered by such learners. The objectives were to identify challenges in teaching learners with Dysgraphia, find out teacher competency in teaching these learners, to establish academic related challenges caused by Dysgraphia and to examine the assessment procedures applied.

Methodology

The research design for this study was descriptive survey. The design was used in preliminary and exploratory studies. It allowed the researcher to gather information summarise, present and interpret data for the purpose of clarification (Orodho, 2003). It was used to evaluate teaching and learning

strategies for effective learning. Information was gathered using questionnaires and interview guides. The research design entailed drawing preliminary information through a pilot study, followed by a systematic field survey. According to Mugenda and Mugenda (2003), a survey entails an extensive research on the nature of the existing conditions. The field survey was meant to help the researcher to come up with primary data, which was summarised and analyzed.

Location of the Study

The study was carried out in public primary schools in Manyatta Division in Embu County, Kenya. The Division is situated North of Embu town and is near Mt. Kenya Forest. The division has only one educational administrative zone named Kathangariri/Kairuri Zone. It has 34 public primary schools of which two schools of these are boarding schools. The division was selected mainly because first, there is evidence that any study on dysgraphia had been conducted in the area. Second, being in the rural area, the use of technology such as computers and typewriters in schools is not common. Many offices and schools mainly rely on handwriting for communicating written information.

Target Population

Manyatta Division has a population of 14,968 pupils. From this population, class three pupils were selected amounting to 2202 pupils (boys - 1113, Girls - 1089). All the teachers in the division were 428. A total population of 2630 people was targeted in this study, (DEO's office, Embu North District, 2012).

Sampling Techniques

Four primary schools were randomly selected. To get sample population for pupils, a 10% of 2202 standard 3 pupils was obtained. This gave 220 pupils. To avoid gender bias, stratified random sampling was done. This involved dividing all the standard 3 pupils from each of the sampled schools into two groups of boys and girls. Random sampling was then used to select girls and boys who were respondents. This was done by writing the word 'yes' or 'no' in pieces of paper and folding them. All pupils who picked 'Yes' became respondents for the study. The head teachers of the sampled schools were purposefully sampled and the standard three class teachers were randomly selected from the sampled schools. Ten per cent of the target population was used to select the

sample because according to Mugenda and Mugenda (2003), it is advisable to select samples of 10% and above.

The researchers provided a self-made checklist based on characteristics of dysgraphia to the class teachers who used it to identify pupils with dysgraphia in their class. Class teachers were involved in the exercise because they have been teaching the pupils since class one and moved with them grade by grade hence they had a better understanding of the pupils. Also in lower primary, teachers stayed with the same pupils throughout the day and taught them all subjects and therefore, they are able to understand their pupils better. The researcher used past records for the previous four terms to verify that the pupils had characteristics of dysgraphia. The EARC Coordinator was involved in the study since they are in charge of assessment and placement of learners with special education needs in the district.

Sample Size

Ten percent of 34 schools was randomly selected to obtain a sample size of 4 primary schools. Each sampled school gave one head teacher, one standard three class teachers. Sample size for pupils was 10% of 2202 of standard three pupils in 4 primary schools which was 220. This was the sample population for learners used in the study. The EARC Coordinator also participated in the study. Total sample size was 229 respondents.

Research Instruments

Data was collected using the following instruments:

- Questionnaires
- Interview schedules
- Observation schedule

Data Collection Technique

Dates for data collection were arranged by the researcher and the school head teachers. Questionnaires were administered to standard three class teachers by the researcher. An interview was conducted by the researcher to the head teachers and EARC Coordinator using an interview

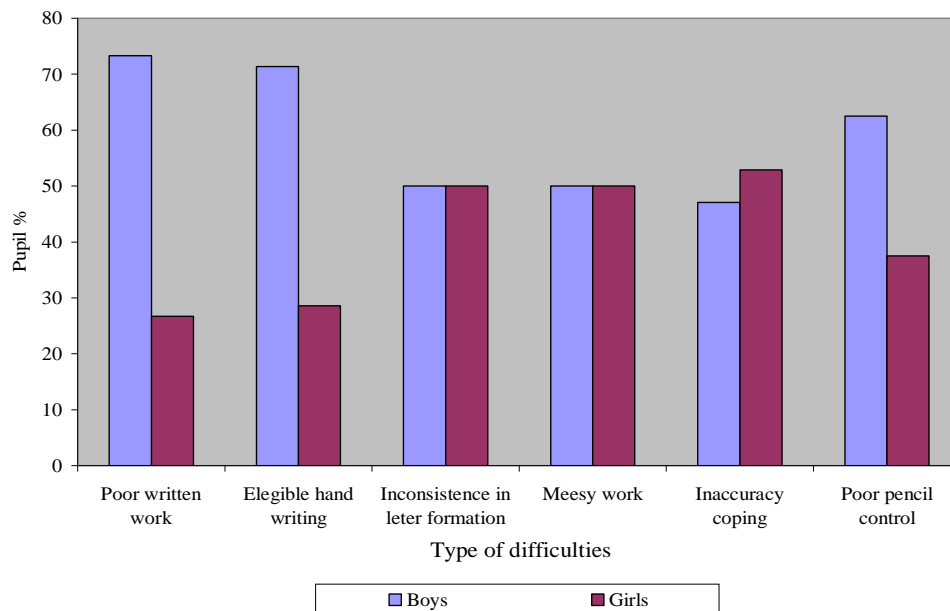
schedule. The researcher used observation checklist to learners with dysgraphia and the exercise was done with the assistance of the class teacher. All research instruments were coded which made it easier for the researcher to account all the instruments used to avoid data loss. After administration, the researcher gave a duration of about 20 minutes to the respondents to answer questions. The instruments were then collected and analyzed.

Data Analysis

Data collected was coded and entered into the computer for analysis using Statistical Package for Social Sciences (SPSS). Descriptive statistics was presented in frequencies, percentages, pie charts and bar graphs to report the quantitative data. Qualitative data was analyzed by arranging information into themes and discussed in narrative form and conclusion drawn.

Results of the study

Academic related challenges of learners with Dysgraphia



The results indicate that boys had the highest percentage of poor written work, eligible handwriting and poor pencil control. Both boys and girls had equal number in inconsistency in letter formation

and in messy written work. Girls with difficulties in inaccurate copying written work were more than boys. The results shows that all the head teachers interviewed agreed the presence of learners with dysgraphia in their schools. The results also indicated that most schools do not have teachers with knowledge on special education and only 25 percent of teachers have that knowledge. Half of the teachers did not give any feedback on hand writing development. It was clear that although there were some teachers trained in special education, three quarters were not involved in the identifying learners with LD in the schools. The interview guide for head teachers reviewed that most of them only advised teachers to do remedial work with learners with dysgraphia. Most teachers report cases of these learners not completing written work. Majority of teachers did not have knowledge in teaching learners with dysgraphia although the government has started institutions that offer training in SNE (MoEST, 2003).

Teacher incompetency in teaching learners with dysgraphia

Professional qualification

	P1	ATS	Diploma	Degree	Special needs education
Training level	1	2	1	0	2
%	25	50	25	0	50

Teaching experience of teachers in years

Years group	1-5	6-10	11-15	16-20	Above 21
No of teachers	1	1	0	0	2
%	25	25	0	0	50

	Adequate	%	Not adequate	%
Instructional materials	1	25	3	75
Active Involvement of learners	1	25	3	75
Special service to learners	1	25	3	75
Different teaching methods	0	0	4	100

Classroom instruction

From the findings it can be observed from the tables above that half of the teachers observed had a course in special needs education. A quarter held a P1 certificate, another 25 percent had diploma certificate and the rest, 50 percent were promoted on merit. 50 percent of teachers disagreed that teachers were trained on identifying learners with dysgraphia. 75 percent strongly agreed that teachers required training on Special Needs Education to enable them identify learners with LD and give them support. 50 percent agreed that learners with dysgraphia were given special attention during the learning process but another 50 percent disagreed. The results further indicated that 50 percent of teachers disagreed that learners with dysgraphia were low achievers.

Responses from the EARC coordinator interview guide

According to the EARC coordinator on assessment tools it was found that there are were no standardized tools for assessing learners with LD but teachers at the assessment center used teacher-made tests to identify the area of difficult. The most common learning disability they established after assessment was in the area of reading which in turn affect writing. The EARC advised teachers to prepare Individualized Education Program (IEP) to learners identified with LD. Teachers were also advised to do remedial teaching to these learners to enable them catch up with the others in the class. There were challenges in the course of assessment which included denial from parents who do not accept that their child was an LD. Another challenge was resistance from teachers who were not willing to do extra work like remedial teaching and preparing IEP. There was also the challenge of lack of standardized tools for assessing LD. To cope with these challenges the EARC coordinator

and teachers at the assessment center gave advice to teachers and parents how to assist these learners.

Conclusion and implications of the study

The study found out that, teaching and learning strategies for learners with dysgraphia in Manyatta Division were inadequate. This may have been contributed by; lack of teacher training for the identification of dysgraphia and knowledge how to handle them in the class, inadequate teaching/learning instructional materials and resources to cater learners with dysgraphia, inadequate support of teachers by the head teachers and other education officers in assisting learners with dysgraphia, lack of standardized tools for assessment in the EARC center. The researcher concluded that these factors hindered effective learning for learners with dysgraphia and they need to be addressed by necessary authorities for effective learning to take place.

Recommendations

The researcher made the following recommendations:

1. The Ministry of Education and subject panels at the KIE should develop instructional materials that could benefit learners with dysgraphia.
2. The Ministry of Education should train education officers on dysgraphia to offer necessary support in the education of learners with dysgraphia.
3. The Ministry of Education should ensure provision of standardized tools at the EARC centers for quality assessment of dysgraphia.
4. The Ministry of education should in-service teachers on the current trends of the education of learners with dysgraphia.

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