

Teachers' Use of Drilling Teaching Method and Spelling Challenges for Students with Dyslexia in (Form Two) Secondary Schools in Cameroon

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ABSTRACT

This study sought to examine how the teacher's use of drilling teaching method affects the spelling challenges for students with dyslexia in secondary schools in Buea municipality in Fako division of the South West Region of Cameroon. The objective of the study was to investigate how the teacher's use of drilling teaching method affect spelling challenges faced by students with dyslexia in secondary schools. A quasi-experimental design was used. The kind of quasi-experimental design used was the Pre-test and Post Test Design with Non-Randomized Experimental and Control Groups. The study included form (2) students with dyslexia in Julius Peter Memorial High School BokwangoBuea and Government Bilingual Grammar School MolykoBuea. These schools were sampled at random among the schools in Buea Municipality. The sample of this study consisted of thirty two (32) students drawn from Julius Peter High School BokwangoBuea and Government Bilingual Grammar School MolykoBuea. A purposive sampling technique was used to select the sample for the study. Data were collected through the use of a researcher made test for children with dyslexia in secondary schools. Data were entered using Epi Data Version 3.1 (Epi Data Association, Odense Denmark, 2008) and analyzed using the Statistical Package for Social Sciences (SPSS) Standard version, Release 21.0 (IBM Inc. 2012). The results showed that, the drilling teaching strategy significantly affect spelling challenges faced by students with dyslexia in secondary schools. According to the results gotten and comparing between the experimental group and the control group, the experimental group, at pre-test, had an average score of 3.625 and this rose to 6.031 at post-test after interventions with a mean difference of 2.406, and this increase in score was significant ($P < 0.05$). Teachers therefore should use drilling teaching method when teaching spellings to students with dyslexia in secondary schools. In this respect, the secondary education authorities should revisit the teaching methodology used in teaching children with spelling challenges in secondary schools.

KEYWORDS: Teachers' Use of the Drilling Teaching Method, Spellings Challenges, Students with Dyslexia, Form two, Secondary schools

INTRODUCTION

The education of students with disabilities has been and continues to be a focus of educational reform. The cornerstone of the issue is identifying students with special needs and placing them away; that is, they are placed in a segregated setting whereas students with special needs are grouped together, and the other regular peer students are placed in a more inclusive setting where they are integrated with normally developing peers. However, other educationalists assert that the learning-disabled students should move to be integrated with the regular students. This movement is best described as the basic flowing integration and the regular education initiative.

Integration/mainstreaming can be defined as the placement of learners with disabilities in regular classes on a full-time or part-time basis with typically developing peers. In this model, the special education support examinations and help can be given inside of the regular classroom, but more

typically involve sending the student out of the regular class during some part of the school day to receive special instruction (Bunch, Finnegan, Humphries, Doré, & Doré, 2005). While integration differs from full inclusion where students with special needs are unquestionably placed in a regular classroom with normally developing peers for the whole day and have special instruction delivered in the regular class (Bunch, Finnegan, Humphries, Doré, & Doré, 2005), integration can be seen as a constructive step in the acceptance of students with special needs into the regular classrooms of their locality schools. Thus, paper explores teachers' use of drilling teaching method and spelling challenges for students with dyslexia

Proficient reading is an essential tool for learning a large part of the subject matter taught at school. With an ever-increasing emphasis on education and literacy, more and more children and adults are needing help in learning to

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read, spell, express their thoughts on paper and acquire adequate use of grammar (Hodge, 2000). Proficient spelling is an essential tool for learning a large part of the subject matter taught at school. With an ever increasing emphasis on education and literacy, more and more children and adults need help in learning to read, spell, express their thoughts on paper and acquire adequate use of grammar (Shey and Nsah, 2019).

Shey and Nsah (2019) further state that a child with dyslexia who finds the acquisition of these literacy skills difficult can also suffer a lot of anguish and trauma when they may feel mentally abused by their peers within the school environment, because they have a learning difficulty. Much can be done by a teacher to alleviate this by integrating the child into the class environment (which is predominantly a learning environment) where he/she can feel comfortable and develop confidence and self-esteem.

Class teachers may be particularly confused by the learner whose consistent underachievement could be due to what may look like carelessness or lack of effort. These children can be made to feel very different from their peers simply because they may be unable to follow simple instructions, which for others seem easy. It is a class teacher's responsibility to provide an atmosphere conducive to learning for all pupils within their class.

Of particular importance is an understanding of the problems learners with poor spelling skills have in a classroom with diverse learners. Contrary to the commonly-held belief that learning to spell is natural and easy, learning to spell is a complex linguistic achievement. It is an acquired ability that requires effort and incremental skill development. Yet most learners can learn to spell if taught appropriately. In fact, scientists have estimated that 95 percent of all children can be taught to spell at level limited only by their reasoning and listening comprehension abilities (Shey and Nsah, 2019).

Although many children learn to spell regardless of the method used, and a few learn to spell with little or no formal instruction, students with dyslexia have difficulty learning the letter-sound system unless they are taught in an organized, systematic, efficient way by a knowledgeable teacher using a well-designed instructional approach. Students with dyslexia need drilling and explicit instruction to develop the knowledge and skills that underpin efficient word spelling. These include an understanding of the alphabetic principle (the understanding that speech sounds are represented by letters of the alphabet) and phonological awareness (the ability to segment words into their constituent phonemes).

Dyslexia Characteristics, Identification and Recognition

Shaywitz et al. (2003) defined dyslexia as a neuropsychological disorder characterized by phonemic awareness that doesn't allow the individuals to make easily the connection between phonemes and graphemes. 80% of learning disability diagnoses in American special education were reported as reading difficulties (Shaywitz, 1998). The diagnosis policies and the provision of services that are called the response to intervention have been recently in alignment with the current definitions of dyslexia (Shaywitz et al. 2008).

Sheryl and Handler (2010) indicated that "...dyslexia is the most common learning disability. They added that 1 out of every 5 people of the children in the U.S. have dyslexia. Dyslexia can vary from mild to severe. It occurs in boys slightly more than in girls. But boys are diagnosed significantly more often than girls, perhaps because they tend to "act out" when they are unable to do a task properly while girls tend to try to become "invisible" in the classroom".

Dyslexia is a language-based disorder of learning to read and write originating from a core or basic problem with phonological processing intrinsic to the individual. Its primary symptoms are inaccurate and/or slow printed word recognition and poor spelling – problems that in turn affect reading fluency and comprehension and written expression. Other types of reading disabilities include specific difficulties with reading comprehension and/or speed of processing (reading fluency). These problems may exist in relative isolation or may overlap extensively in individuals with reading difficulties. Chang (2003) demonstrated that dyslexia often exists in individuals with brilliance, talents, and abilities that enable them to be successful in many domains. In addition, dyslexia often coexist with other developmental difficulties and disabilities, including problems with attention, information retrieval and memory.

Chang (2003) added that the underlying problem challenging the children with dyslexia is that many students with milder forms of dyslexia are never officially diagnosed and consequently they are denied the eligibility for special education services. As such, the cited dyslexic children don't usually receive the appropriate instruction in the regular classroom and through other intervention programs. In fact, Chang (2003) asserted that all educators, school administrators, teachers should be accountable for ensuring the appropriate dyslexia identification and for maintaining the treatment of dyslexia, and children with dyslexia shouldn't be the responsibility of just the reading or special education teacher. More importantly, Chang (2003) pointed out that early intervention usually results in major gains in the reading comprehension achievement, yet individuals with dyslexia and other reading difficulties can be supported at any age.

Dyslexia is a learning disability that commonly runs in families and this learning disability is not determined by the intelligence quotient of the individual. It has also reported by International Dyslexia Association, Professional Standards and Practices Committee report (2010) that around 40% of siblings, children, or parents of a dyslexic individual will have dyslexia.; as such, family history of an individual might be an identification instrument of a reading disability .In addition, the reading disability is often recognized in the child's early language development and performance in lower school classes ,mainly in the pre-school and elementary school. Thus, the dyslexic learner might be a bright child with high intelligence quotient since dyslexia is a language processing problem not associated with intelligence.

Dyslexia is not a temporary developmental lag condition; it is a life-long problem, for example, the treatment might result in remarkable reading gain, yet some dyslexics might continue being challenged by reading fluency even when

they learn to read words accurately. They won't achieve remarkable and efficient gains as the unimpaired readers (Sheryl & Handler, 2010). Juliet Freud (2009) stated that disorders which may occur together with dyslexia, probably complicating the dyslexic problems, comprise dyspraxia, attention disorders, and visual difficulties, in addition to wider impairments in language development.

'Trajectories' of reading development are determined by many factors, including vocabulary knowledge, teaching approaches and reading materials. Teaching methods that address the sub skills of letter identification, whole-word recognition, awareness of phonic components, phoneme identification, blending and segmenting awareness, is crucial in enhancing the poor reading ability of the students with dyslexia (Paris, 2005). Consequently, a child with dyslexia might make adequate early progress in word recognition at an early age and might perform within age-expectations on a standardized test of word recognition, so it won't be feasible for the teacher to notice him. As such, this child won't be properly helped because his case and problem with the dyslexic challenges will remain unaddressed. However, the use of investigative measures which are more precise and accurate to detect dyslexia, such as formal or informal tests of phonic decoding skills, verbal memory and phonological awareness, remains the underlying type of dyslexia screening and assessment batteries. As such, the use of the cited formal or informal tests can help such children overcome their the reading challenges caused by dyslexia.

Approaches Used To Teach Dyslexic Learners

In this segment of the article, the traditional as well as the most recent approaches used for improving the educational experience and achievement of dyslexic learners is discussed to provide an up-to-date review of these approaches inside and outside the classroom. Emphasis is given to the most widely used approaches, especially the ones that generated a greater number of studies in the field. In this review, we took into account the behavioural, emotional and social aspects of conditions affecting dyslexic learners. Furthermore, the advances in computers and technology have also been looked at to see what role they might play in assisting learners with dyslexia.

Additional Support Strategies

According to Calder (2004) classroom assistants can contribute to a meaningful and positive learning experience for dyslexic learners. Her small-scale study undertaken in Scotland, explored the kinds of support strategies appropriate for a typical dyslexic pupil included provision of learning support, practical support and socio-cultural support as well as emotional support. Calder (2004) emphasised that 'learning support' is highly desirable because dyslexic learners are likely to benefit from additional help in picking up new concepts.

The presence of the learning assistants also makes it easier for the teacher to try using new teaching approaches that can be of benefit to dyslexic children. Similarly, classroom assistants can extend some 'practical support' to learners, especially when they get frustrated with their writing difficulties. Working closely with learners can also provide some useful information (through observation) of the child's progress, which they can eventually pass on to the teacher. 'Socio-cultural support' also comes in, as they help with the

class management and through modelling good social skills. Finally, the literature suggests that dyslexic children may lack self-esteem (Humphrey, 2003; Polychroniet al, 2006) because of their continuous experience of failure (Alexander-Passe, 2004; MacKay, 2004). Skilled classroom assistants, by developing very close personal relationships with the learners and understanding their emotional needs, enable them to respond appropriately in times of learner frustration and exhaustion with school activities.

Development of Phonological Skills

Reading is either viewed as a complex activity (likened to 'the performance of a symphony orchestra') or a relatively simple one consisting of two independent processes: decoding, which requires the use of lower order language skills to convert letters into sound sequences, and linguistic comprehension skills (Simpson, 2000; Snowling, 1998). Such an approach, focusing on the development of phonological skills, is based on the premise that decoding and language comprehension are equally essential for reading simply because the written language is a set of codes.

It is also worthy of mention that the most current and widely held understanding of dyslexia can be traced to the deficit in phonological processing abilities (Sawyer, 2006). According to Simpson (2000), the 'current consensus is that developmental dyslexia is best regarded as the manifestation of a deficit in the language system. Stanovich (1988, 1991 cited in Simpson (2000) explains further the rationale for this: it can be observed that a common phenomenon amongst dyslexic learners is that they all display phonological processing problems which lead to their word recognition failures (Lovett *et al*, 1994; Sawyer, 2006). Snowling (1998) also explains that dyslexia manifests itself in different cultures, languages and school systems, and this supports the argument that the reading difficulties of dyslexic learner's stem from their phonological processing problems. This also suggests that children who are delayed in their phonological development are at risk of dyslexia (Snowling, 1998).

The wealth of evidence suggesting a causal link between phonological awareness and effective reading justifies the numerous interventions concerned with how phonological skills can be improved (Gang and Siegel, 2002; Snowling&Hayiou-Thomas, 2006). According to Joshi *et al* (2002), a number of studies prove that 'systematic, explicit, decoding instruction that emphasized synthetic phonics yielded better results than other instructional methods. Many studies tend to echo the effectiveness of such an approach (Hatcher, 2000; Simpson, 2000) including their observed long-term impact (Tijms *et al*, 2003). A large body of research over the years supports the idea that specific instruction in aspects of phonological awareness can effectively assist students in the acquisition of reading skills (Sawyer, 2006; Simpson, 2000). Furthermore, it has also been strongly advocated by its proponents that the 'central problem of dyslexia', ie learning to read, can both be solved and prevented by using the right teaching methods and tools. There is good theoretical and empirical rationale for intervention aimed at promoting phonological processing skills, but more research is needed to determine how, for how long, and by whom, such intervention is best offered. (Simpson, 2000)

Facilitating a Positive Sense of Self

In a paper presented by Hales (2004), he explained that everybody has a personal 'image' of his/her position in the world and this belief in oneself defines his/her likelihood of success. Consequently, the lack of belief in oneself may increase the likelihood of failure. In a world where reading, writing, spelling and talking are part of day-to-day communication, it is no surprise that social and emotional difficulties, let alone a low sense of self, are constant companions of most dyslexics. They can easily find themselves in situations where they are regarded as different, strange or unintelligent (easily resulting in feelings of anxiety, stress or depression) especially when people they deal with are not aware of their condition. This perhaps accounts for what Humphrey (2002) explains: research studies of children with special learning needs are likely to develop 'maladaptive self-referential styles', ie a tendency to refer to themselves in a negative manner, leading to low self-perceptions as a result of unrealistic comparisons of themselves with their non-dyslexic peers.

The idea that 'the self does not operate in isolation' (Humphrey & Mullins, 2002) is crucially important when aiming to improve dyslexic learners' views of themselves. Humphrey (2003) elaborates that self-perception, which constitutes all the thoughts, feelings, attitudes and beliefs about a person, is mainly acquired in a social context: 'the child experiences him/herself indirectly from the particular standpoints of other individuals. Teachers and peers reflect an image of the child, which ... is incorporated into the child's developing sense of self' (p. 131). This is because 'self-development is a social learning activity' (Humphrey, 2002). Therefore, knowledge of how views of self are created suggests that the significant individuals (ie parents, teachers, peers) around those with dyslexia play a vital role in the development of these views and perceptions.

With direct reference to the child's development, 'the self-system is a significant factor in reading success, motivational orientations, self-esteem and learning approaches. Low self-esteem, specifically in scholastic competence and social acceptance, has been linked with social, emotional and behavioural difficulties.' (Polychroniet al, 2006, p. 415).

By contrast, MacKay (2004) contends that the expectation of success has its empowering effect. Some of the classroom-based strategies suggested to support dyslexic learners include:

- A. providing activities that are highly challenging but incur low stress levels x immediate use of feedback to acknowledge learners' success or progress in doing classroom tasks
- B. providing a combination of activities and learning strategies x supporting dyslexic learners as they work within their comfort zones, especially during the initial stages of the task.

According to MacKay (2004), such tasks are designed to help in building and developing both the intellectual confidence and self-esteem of the learners in order to prepare them to undertake activities that are more challenging.

Intensive Remedial Instruction

In a study undertaken in England, Humphrey and Mullins (2002), describe the characteristics of an intensive remedial instruction:

- A. The children are in specialised settings spending about 90 per cent of their class time with other dyslexic learners
- B. Classes are small in size (i.e. around ten learners per class)
- C. Teachers receive special training (ie many completed Master's degrees in relevant areas)
- D. Availability of specialised equipment and resources (including computer software designed for dyslexic learners).

When it comes to impact, Simpson (2000) argues that personal factors including severity of the problem, cognitive and linguistic skills as well as the person's age and personality should influence the 'quantity and quality of general and remedial teaching received and the complexity of the written language system to be learned' (p. 356).

Multisensory Teaching System/Approach

The use of the multisensory teaching system/approach has 'deep historical roots' (Joshi *et al*, 2002) which can be traced as far back as the late 1800's when reading instruction was based on teaching the relationship between the letter and its sound. Such a trend was changed in the early 1900's after the introduction of the whole-word approach. After this shift of emphasis on reading, Dr Samuel Orton noticed patients who were unable to read, spell and write, yet this was not determined by any obvious physical cause. Working closely with Anna Gillingham (an educator) he developed the use of the multisensory teaching technique.

According to Barbara Foorman, the following conditions are indispensable when children learn to read (Smith, 2001):

- A. Phonological awareness sensitivity to the sound structure (rather than the meaning) of speech, eg rhyming words.
- B. Phonemic awareness ability to manipulate sound units (ie phonemes) that are smaller than the syllable.
- C. Alphabetic principle understanding that written words consist of alphabet letters that are linked with the phonemes of every word spoken.
- D. Orthographic awareness knowledge of spelling patterns and orthographic rules, morphology and etymology.
- E. Comprehension monitoring strategies strategies for understanding and remembering the text.

The Multisensory Teaching principle addresses four of these conditions and is combined with the fifth element to obtain a balanced reading program. This is due to the notion that although it is primarily based on the use of phonics, it is also acknowledged that the use of phonics alone is not adequate.

Partnership between Parents and Teachers

Life for many dyslexics can be difficult and unhappy, as they are often expected to perform like their non-dyslexic peers (Alexander-Passe, 2004). In this respect, any additional support they can receive outside the school is considered invaluable. In a small-scale study with dyslexic learners, Alexander-Passe (2004) found that about two-thirds of the dyslexic participants thought that their parents understood their condition. Another third probably had a more troubled life as a result of not getting appropriate social, emotional and practical support from those closest to them (Fawcett & Nicolson, 1991). In such cases, parents may often not even be willing to acknowledge that there is a problem.

A study undertaken by Hales (2001) highlighted the experience of dyslexic learners and their parents as they discovered various strategies that parents can use to help their dyslexic child. This may include talking to other parents of children with the same condition, believing that their effort can make a genuine difference to their child, and remembering that they know their child best. As part of a two-year evaluation project, which highlighted the parental-professional communications relating to dyslexic learners' learning difficulties, parents' roles were said to have evolved from a type of compensation (ie parents' supportiveness) to communication, then, to accountability leading to participation or partnership in which parents and teachers worked together.

Promotion of Dyslexia Friendly Schools

In a recent journal article based on a study with participating schools in Durham, Riddick (2006) called for the adoption of dyslexia friendly practices to ensure that the needs of children with specific learning needs would be legitimately met. When dyslexic learners' self-esteem was compared to that of their peers who develop typically, it showed that they had significantly lower self-esteem. Riddick (2006) indicated that environments which implicitly encourage dyslexic pupils to compare themselves with their immediate peers are not helpful. A study by Humphrey (2002, cited in Riddick, 2006), reveals that when the self-esteem of dyslexic learners from the mainstream classroom and those who were in a specialist dyslexia unit were compared, it was found that the latter scored notably higher. According to Riddick (2006), 'for many children with specific literacy difficulties, the mainstream class is not a "dyslexia friendly" setting' (p. 146).

So, what is a dyslexia friendly school like? How can an ordinary school be transformed into one that is dyslexia friendly? According to MacKay (2001), in a study undertaken in Wales, a dyslexia friendly environment is characterised by the presence of the following:

1. staff who are trained in 'dyslexia friendly' techniques;
2. specialist provision. Extra time for specialist tuition is created. Dyslexic learners are taught by a very experienced and highly qualified dyslexia specialist
3. strong leadership from the school management x whole school approach to special needs in general x a culture of high expectation for all x rigorous monitoring and evaluation.

MacKay (2001) also argues that effective school's value strong leadership, staff development, and the quality of instruction and learning. In such schools, all children – irrespective of their abilities – are deemed important and so they are provided with the resources and environment that they need to develop optimally. It has been argued that 'many of the practices advocated for a dyslexia friendly school will benefit a wide range of children and not just those children identified as having dyslexia' (Riddick, 2006).

Use of Special Computer Software

The potential benefits of word processors in helping dyslexic learners 'suggest there is justification for examining how a computer might be used to assist dyslexic readers with text reading and production' (Gregor *et al*, 2003). They have a number of features which are particularly helpful to those who have literacy problems. These may include consistent

and clear text on the screen, spelling aids, grammar function, and a predictive-typing facility.

However, although a computer is acknowledged to be a useful aid, it also has its limitations. For example, by the nature of the computer and its functions, it is not designed to be used by those who need to wear tinted glasses when reading. Therefore, a team consisting of a software engineer, a teacher with a specialism in dyslexia, a usability engineer/psychologist and a programmer designed *See Word*– a highly configurable word processing environment that allows dyslexic learners to select the settings the learners considered most appropriate for reading the text. Experimental findings suggest that dyslexic learners can benefit significantly when reading from the screen using this special software. Gregor *et al*, (2003) suggest that a larger-scale evaluation of such software is necessary.

In another study, which took place in a Spanish context, an intervention (i.e. a computer-based reading practice) was given to two groups of children: 14 dyslexic children, and 31 'garden-variety' poor readers. Another group (ie control) with 28 children with low reading performance was not given the intervention. Pre- and post-tests were administered to all children in the areas of word recognition, reading comprehension, phonological awareness and visual and phonological tasks. The study findings indicated that there was improved word recognition for the two groups who received the intervention, albeit that dyslexic learners demonstrated difficulties during computer-based word reading. The study also demonstrated that 'low-IQ children with [learning disabilities] were more successful than those with high IQs in improving their phonological awareness skills [suggesting] that intelligence-level information may not be necessary for differentiating children with reading disabilities from garden-variety poor readers' (Jimenez *et al*, 2003). Other programmes that have been specially developed for dyslexic learners over the last ten years include 'Punctuate Plus', 'Sounds & Rhymes', 'Soapbox', 'Chatback' and 'Magic E' (see <http://xavier.bangor.ac.uk/xavier/software.html>).

Use of Suitable Print Size and Background Colour

According to Vellutino *et al* (2004), the most prevalent and influential research on dyslexia before the turn of the century focused on the deficiencies in the dyslexic's visual system. A study conducted by O'Brien *et al* (2005) in the US specifically explored dyslexia as a visual-deficit learning disorder and addressed the question "Do dyslexic learners have a preferred print size to facilitate faster reading?"

There are various reasons why reading impairment can be caused by a stressed visual system. Firstly, when compared with skilled readers, dyslexic learners are probably less efficient at picking up visual information (ie distinguishing letters in words). Secondly, they may be suffering from lateral masking ('crowding') effects. Lastly, it may be a product of short visual span, which determines the number of letters that can be recognised at a glance (O'Brien *et al*, 2005).

The study made some interesting findings, one of which suggests that 'dyslexic readers behave like younger non-dyslexic readers with regard to having slower maximum reading rates and higher critical print sizes' but 'the slowest

dyslexic readers did not necessarily require larger print size thresholds to attain their maximum reading speed, whereas slower non-dyslexic readers did' (O'Brien *et al*, 2005, p. 345).

Spelling and Vocabulary Training

Spelling Training

It is widely recognised that spelling mistakes are characteristic of many dyslexic learners (Pavlidis & Katana, 2004). In this regard, Sunday (2004) endorses the teaching of spelling for two reasons:

- A. Children are failing to master written language skills which can have serious consequences in academic subjects which require proficiency in these skills.
- B. Concurrent teaching of reading and spelling can reinforce each other which helps children to learn and succeed.

Based on a UK study, Lee (2004) strongly advocates the use of the SpELSS method (Spelling Easily with Logic, Syllables and Suffixes) as one that both works and appeals to dyslexic learners. This logical approach to spelling is designed to help dyslexic learners to have more control of their spelling by learning and analysing the roles of vowels, syllables, syllabled words, and consonant and vowel suffixes amongst others. Lee (2004) also pointed out that spending more time for these lessons will help ensure that dyslexic learners can integrate them into their writing.

Bos and Reitsma (2003) investigated the effectiveness of various spelling exercises in a Dutch context. Taking cognisance of their own experience and with a specific poor speller in mind, a group of experienced support for learning teachers were asked to rank several sets of spelling exercises from the most to the least effective. Such exercises include identification of strategies for teaching spelling:

- A. provision of explicit rules
- B. phonological support
- C. use of structuring into similar words
- D. repetition of practised words
- E. reading exercises
- F. Transfer/generalization of spelling rules.

Their study proposes that 'a rule-based strategy (is found) to be the most effective, irrespective of children's IQ, phonological skill, or attention' (Bos & Reitsma, 2003). A slight reservation was expressed whether the findings of the study with a transparent language like Dutch are transferable to an opaque language like English.

Vocabulary Training

Fawcett and Nicolson (1991) contend that '(t)he ability to learn new vocabulary is a crucial component in the acquisition of verbal competence [since] almost every verbal ability or aptitude test includes a vocabulary subtest'. This principle prompted them to conduct a longitudinal study involving 13 dyslexic adolescents over five years. Participants from Sheffield were chosen for whom efforts to remedy their reading deficit had proved unsuccessful, resulting in a deficit of at least 18 months.

The participants were initially categorised into two groups (i.e. the poor vocabulary and the good vocabulary) and were all given a pre-test on different aspects of the experimental tasks followed by six weeks of training on specified

vocabulary items. The experiment comprised both enriched and traditional training techniques. The enriched training involved the use of difficult words (eg philanthropist, scapegoat, astound) chosen to encourage generating sentences, semantic linking and identifying affective reactions, as opposed to purely discussion of dictionary definitions. The traditional training employed the use of worksheets, crosswords and word bingo, amongst others, which were presented by using dictionary-type definitions.

Parents were asked to provide assistance (eg giving examples that would stimulate the discussion, working directly with their child using the prescribed word cards and work books). At the end of the training period, an immediate post-test (equivalent to the pre-test) was administered and was followed-up by a post-post test six months later. A significant improvement was noticeable from the 'good vocabulary group' when their pre-test and post-test performance was compared. Likewise, it is worthy of mention that the improvement in knowledge of words persisted even after six months. This was not the case for the 'poor vocabulary group', however, in this simple vocabulary training programme, the experimenters were also able to draw the conclusion that 'the training program ...should prove sufficient to lead to long-term improvements in vocabulary knowledge if the initial vocabulary level is adequate' (Fawcett & Nicolson, 1991)

Statement of the problem

The study has been provoked by the fact that most students in secondary schools with dyslexia, unlike all other students in secondary schools are unable to make progress in spellings. Teachers' appropriate instructional strategies are required to help them develop spelling skills in order to be able to spell words correctly. Unfortunately, most teachers in Cameroon use other teaching methods which are less beneficial to students with spelling challenges and the students continue to suffer academically.

Objective:

The objective of the study was to determine how the teacher's use of drilling teaching strategy affects the spelling challenges faced by students with dyslexia in form two in secondary schools.

Hypothesis:

The teacher's use of drilling teaching strategy has no statistical significant effect on the spelling challenges faced by students with dyslexia in form two in secondary schools.

Methodology:

The research design used in this study was the experimental design. The experimental design adopted was the quasi-experimental design. The kind of quasi-experimental design used was the pre-test and post-test design with non-randomized experimental and control groups. Comparison groups rather than randomly assigned control groups were used in this study as the baseline against which net programme impacts were measured. In this study the effect of teacher's use of drilling teaching method on the spelling challenges by children with dyslexia in Buea Municipality of the South West Region of Cameroon was measured. This was done by manipulating the independent variable of the study (teacher's use of drilling teaching method and measuring its effect on the dependent variable (spelling challenges by children with dyslexia).

Table 1: The Pre-Post Test Design with Non-Randomized Experimental and Control Groups

Group (Independent)	Pre-test	Intervention	Mid Test (Two)	Intervention	Post Test (Formative Evaluation)
G1	√	√	√	√	√
G2	√				√

Table 1 above shows the different groups involved in the study and the tests conducted. The study was structured as pre-test, intervention, first formative evaluation, second formative evaluation, intervention and post-test. The intervention as presented on the table 1 above was administered only to the experimental group (G1). G1 and G2 represented the experimental and control groups respectively.

Sample of the study

The study included form (2) students with dyslexia in Julius Peter Memorial High School BokwangoBuea and Government Bilingual Grammar School MolykoBuea. These schools were sampled at random among the schools in Buea Municipality. The sample of this study consisted of thirty two (32) students drawn from Julius Peter High School BokwangoBuea and Government Bilingual Grammar School MolykoBuea.

Table 2: Showing Sample of the Study

Name of school	Class	Number of students used				Age range
		Experimental group		Control group		
		M	F	M	F	
Bishop Jules Peters Memorial High School BokwangoBuea	2	4	4	4	4	11-13
Government Bilingual Grammar School MolykoBuea	2	4	4	4	4	11-13
TOTAL		8	8	8	8	11-13

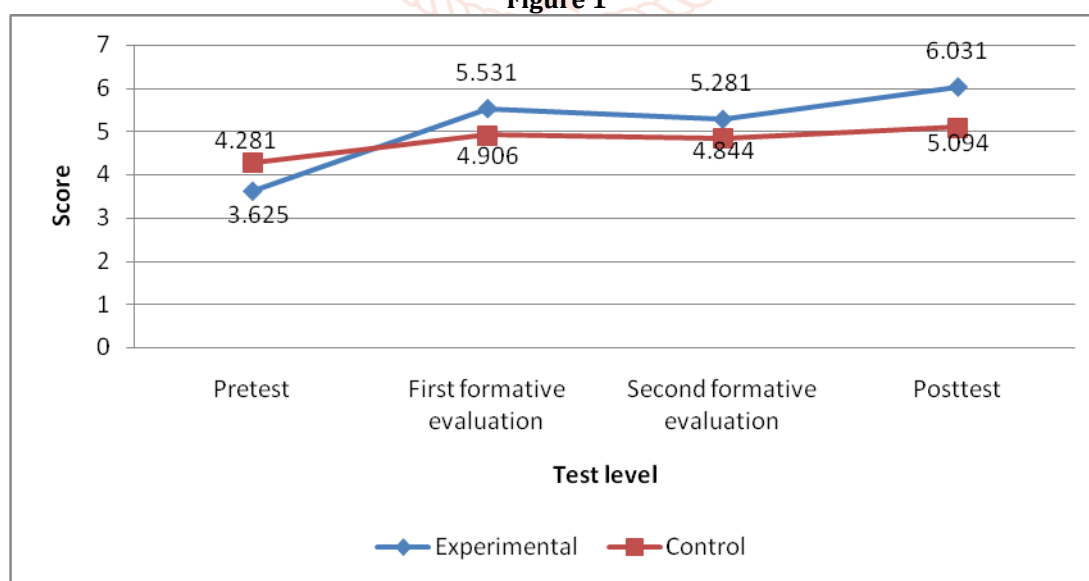
Table 2 above shows that eight (08) students each with dyslexia were selected from Bishop Jules Peters Memorial High School BokwangoBuea and Government Bilingual Grammar School MolykoBuea respectively. The eight (08) students were all used in the experimental group. Another group of eight (08) students each were also selected from Bishop Jules Peters Memorial High School BokwangoBuea and from Government Bilingual Grammar School MolykoBuea and were assigned to the control group. The classes, sexes and ages of the students were considered during the study.

These schools were selected through the use of simple random sampling technique. Through this technique, the researcher wrote the names of all the public schools in Buea on one side and the private schools on another. The pieces of papers written on, were folded and her friend was asked to pick up one paper from the group of private schools and another from that of the public schools. The schools picked up from the two groups were Bishop Jules Peters Memorial High School BokwangoBuea and from Government Bilingual Grammar School MolykoBuea. As a result of this selection, the two schools were used for the study.

Results and discussion

It was earlier explained that the improvement in score from pre-test to post-test was higher in the experimental group. However, the figure below indicates students have progressed over the various test levels.

Figure 1



In the control group, a slight progression of 0.813 was obtained but this progression was significantly lower ($P < 0.05$) than the 2.406 score obtained in the experimental group. The hypothesis here stated was then rejected based

on mean comparison thus implying that the teacher’s use of drilling teaching method had a significant impact on spelling abilities by students with dyslexia in secondary schools.

This result is also in line with Suleman and Hussain (2016) who stated that drilling teaching method should be adopted by the teachers for improving children's performance in English at elementary level. Also, the study confirmed Hussain and Zeeshan (2010) who carried out a study to determine the role of the direct teaching in the academic achievement of students in English at the secondary level and found out that students who were taught using the direct teaching method outscored the students working in the traditional learning situation. Low achievers in the direct teaching showed significant superiority over low achievers learning English by the traditional method. Thus, drilling teaching was found to be a more effective method for quality teaching of English to the low achievers as compared to the traditional method of teaching. Furthermore, the study supports Vygotsky (1978) in his social learning theory who believes that children need assistance of teachers to overcome their Zone of Proximal Development. In this respect, the teacher's use of direct teaching methods helped them to overcome the Zone of Proximal Development.

CONCLUDING REMARKS

Learners who have difficulty mastering basic spelling skills suffer long term academic consequences. Researchers believe that if children do not master basic spelling skills and become efficient spellers, they will fall so far behind their peers that they will never be able to catch up (Prado & Plourde, 2011). Because children with learning disabilities especially those with dyslexia represent a population of learners who require individualized and specialized instruction, unique teaching methods must be implemented to meet the needs of this population. One teaching method that has been accepted as an effective way of teaching reading to students with spelling challenges in secondary schools is the direct teaching model. Drilling teaching has a long history of effective results for students with learning disabilities, especially when used as an intervention for older students (Shippen, Houchins, Steventon & Sartor, 2005).

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