

Application and Relevance of the Orton Gillingham Structured Literacy Teaching Approach to Pupils with Specific Learning Disabilities in Kenyan Public Primary Schools

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Abstract

The Kenyan Government through the Ministry of Education has since independence been committed to improving education and inclusion of children with audio, visual, physical and mental disabilities. Despite the fact that considerable change and growth have been realized since the ratification of treaties such as United Nation Convention on the Rights of Persons with Disabilities (CRPD), the implementation of inclusive free and appropriate education for learners living with Specific Learning disabilities still remains a challenge. This limits the potential of students with specific learning disabilities especially in mainstream classrooms, to acquire basic literacy skills including spoken language, reading, writing, spelling and comprehension. Literacy skills are key in determining performance in other subjects taught in the school curriculum. The overall objective of this study is the exploration of the application and relevance of the Orton Gillingham structured literacy teaching approach to pupils living with dyslexia in Kenyan public primary schools. This qualitative study used content analysis to explore appropriate teaching methodology to pupils with such challenges. The study analyzed various studies that have been done on the appropriateness and effectiveness of the Orton Gillingham method and its application and relevance to the Kenyan school context.

Keywords: Learning Disabilities, Dyslexia, Literacy Skills, Orton Gillingham Structured Literacy Teaching Approach.

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INTRODUCTION

Orton-Gillingham Structured Literacy approach is a teaching methodology that has successfully been used to teach pupils with reading difficulties. It uses how practical approaches that can be applied in mainstream classrooms to remediate language problems exhibited by many students with reading challenges. Many schools globally use different curricula and methods to teach language but the ultimate goal is to enable students acquire literacy skills which are a prerequisite in communication and have a large bearing on how other academic subjects are mastered. Thus, it is important that pupils have a sound foundation on decoding language, expression, writing, comprehension, spelling and writing. In the African context, Kenya not an exception, where schools are faced with challenges like overcrowded classes, staff shortage, no specialist and accredited dyslexia assessors trained to screen and identify dyslexia, the burden of figuring out how to support the child lies on the parents

as the child's first teacher and the earliest socializing agents. As pupils progress to kindergarten and primary schools, teachers take over as secondary socializing agents. At this stage teachers are expected to ensure that pupils learn to read, write, spell and comprehend. In Kenyan public primary schools, pupils are expected to learn both English and Kiswahili so the mastery of literacy skills in the two are critical. Pupils with specific learning disabilities may not be able to grasp these skills unlike their peers, thus it is important that they receive instructions that are responsive to their specific needs. Although The Orton Gillingham approach to teaching structures literacy is not a well-known or used teaching methodology among teachers in public primary schools in Kenya, some non-government organizations such as Dyslexia Organization, Kenya have since 2020 began to offer online teacher training on it to teach pupils with dyslexia and other reading difficulties. Those targeted to train in this method include teachers of Special Needs Education, parents of students with special education needs, ordinary

mainstream class teachers and teachers in Kenyan public schools. In the Kenyan context, teachers in mainstream public schools use traditional methods to teach literacy skills and there are no individualized education plans for students with specific education needs.

Over the years as teaching methodologies evolve and new areas such as specific education needs are identified, there is increasing need for teachers to upscale their training, learn new methods that are appropriate for teaching all children and use practical methods that can help in the remediation of students with specific education needs. Reading is critical in determining a pupils overall literacy success in school (U. S. Department of Health and Human Services, 2000). Reading difficulties account to a large extent to school failure. (International Dyslexic Association, 2012). In Kenya, like in many countries in Africa, there is the assumption that every child of school going age will be able to learn to read. The cause of this is likely to be dyslexia among other language- based difficulties and comorbidities. Researches indicate that one in every five in any classroom is dyslexic (Shaywitz, 2005). More recently, Dyslexia Action (2017) estimates the global statistics of people with dyslexia at 16% of the world's population which is equivalent to seven hundred million worldwide.

In Kenya however, a lack of official government statistics on the total number of children with reading disabilities in public schools making early identification and remediation to enable them acquire literacy skills difficult. The need then arises to establish the underlying reasons for their inability to learn to read, write, spell and comprehend language like their peers. Findings by scholars such as Owala (2008) in a study on the extent of dyslexia in sampled public schools in Nairobi East, Makadara Division notes the lack of awareness of dyslexia by the teachers sampled despite an observation of the students indicating symptoms of dyslexia. The Orton Gillingham approach to structured literacy cannot be looked at in isolation from reading difficulties such as dyslexia. The starting point is thus an awareness of what dyslexia is, the significance of its early identification, the need for appropriate teacher training and relevant remedial action, part of which could involve the use of alternative teaching methodologies that can work for such pupils

The Definition of Dyslexia

Dyslexia is a difficulty often associated with the inability of students to acquire reading skills, inability to acquire reading fluency, incomplete or poor development of spelling, decoding and comprehension despite conventional classroom experience. Although there are some divergences its definition ranging from neurological and social models in studies by scholars such as Habib (2000), Protopapas and Parrila, (2018),

Alexander Passe (2018), Kirby (2020) among others there is convergence on the need to use teaching strategies that work for pupils with dyslexia.

An understanding of dyslexia is thus key to this critique because it is one of the specific education needs areas where the Orton Gillingham method to remediating structural literacy has been mostly used. Ross (2009) defines dyslexia as a challenge affecting the acquisition of basic literacy skills.

Additionally, Snowling (2020) observes that dyslexia is characterized by difficulties with accurate and/or fluent word recognition and by poor reading (Christodoulou, 2014). Other definitions of dyslexia have been given by Hill and Lauenders (2010), implying difficulty with words. The implication of this is critical because failure by pupils to acquire these skills is failure at school which can include humiliation, stress, insecurity, loss of self-confidence and ridicule by peers and teachers who may not understand their challenges. As Aston (2016) observes, pupils at risk for failure because of their inability to learn basic literacy skills are bound to experience sustained failure in all other subjects apart from language. This has a ripple effect on their social status which can easily turn into aggression and truancy because the pupils cannot cope with academic requirements.

Teaching students with dyslexia therefore requires an understanding and awareness of what dyslexia is and how it affects literacy specialized teacher training and specialist teaching methodology in inclusive, mainstream environments

The Status of Reading in Kenyan Public Schools

While it is taken for granted that pupils will master literacy skills once they start school and are taught evidence indicates the contrary. It is a requirement that pupils in public schools in Kenya learn both English and Kiswahili although English language remains the main medium for instruction in all the other subjects taught across the curriculum. Mastery and skill in English are therefore critical in ensuring academic progress of pupils.

Wachira (2017) notes the irony of Kenya spending billions of shillings on children who cannot read, write or count. Early identification and remediation are likely to be the underlying reasons which could be specific learning disabilities such as dyslexia continue to be a challenge because of lack of awareness, unavailability of testing tools and the cost of available private testing for parents who are from low socio- economic backgrounds. Consequently, the number of children with dyslexia remains unidentified and there are no official Kenya government statistics on children, adolescents or adults with dyslexia. More recently, Mwai and Gitau (2021) note the shock of mass failure of Kenyan students in key assessments and the

concern about the inability of a large percentage of pupils to attain minimum proficiency levels in reading, application of knowledge of words and grammar. This included low proficiency levels in writing and composition thus the need to investigate the need for different teaching approaches for students with specific education needs. If the underlying reasons for failure of these pupils is not investigated then chances that they will not progress with their studies and succeed in life in adulthood are heightened. There is therefore need to reflect on some of the teaching methodologies and approaches that are used globally in contemporary times and establish what can work for Kenyan pupils.

Although not much has been done by public schools with regard to the use of different approaches and strategies that work for pupils with literacy challenges, some Non-Governmental Organizations have taken the lead in bringing together teachers of special education needs, regular teachers in mainstream public schools and parents of children with dyslexia. This has aimed at complimenting trainings that have been provided by universities and the Kenya Institute of Special Education. Indeed, this is in line with the Government of Kenya Policy Guidelines (2018) which emphasizes inclusive education and the need to ensure that all children have opportunity to learn as outlined by the *Bill of Rights in the Kenya Constitution 2010*. More specifically and relevant to this study is the focus on the pupils with specific learning disabilities and their right to education. In this case disability is not limited to the audio, visual, physical and mental handicaps but is expanded to cover ones like specific learning disabilities which may not be as visible. There is therefore need for assessment, early intervention, and access to sound education to identify and provide appropriate support for such children in Kenyan public schools. Accommodating and including these students in mainstream public schools is not enough. There should be appropriate teacher training for specialized fields like specific learning difficulties for specialized learning, modified and relevant teaching techniques and methods, appropriate resources and assistive devices for learners with Specific Learning Disabilities such as dyslexia to enable all pupils graduate from school with basic literacy skills.

Statement of the Problem

Kenya has made great strides in Special Needs Education with an emphasis by the government on physical, audio, visual and mental disabilities, the area of specific education needs such as dyslexia remains a challenge. Additionally, teacher training has broadly focused on specific education needs broadly despite growing evidence that each one needs tailor made approaches and specialized teaching methodology and resources. Despite the fact that the government of Kenya has continued to work in collaboration with relevant government institutions to ensure the provision of quality, relevant, holistic and inclusive education to

all learners and trainees, gaps continue to exist thus the need to adapt teacher training and current trends and methodology to address the unique needs of learners especially those with the often 'invisible disabilities' under the category of Specific Education Needs.

OBJECTIVE OF THE STUDY

The main objective of this study is the exploration of the application and relevance of the OG Method to teach pupils with reading challenges in Kenyan public primary schools.

Review of Related Literature

Orton-Gillingham (O-G) methodology uses a systematic, multisensory approach to teaching literacy skills. Stevens, Austin, Moore, Scammacca, Boucher and Vaughn, (2021) define the Orton-Gillingham approach as a multisensory teaching method. As Webster and Mc Connell, (1987) note, a curriculum that is broad and opens opportunities for individualized learning needs and opportunities is the best suited for students with specific education needs such as children with dyslexia.

While in Kenya modern methods of teaching structured literacy may not be identified in public schools it is a method which if adopted would help students with specific education needs acquire basic literacy skills. In Kenya research done Kenyan scholars have focused on its awareness, prevalence, challenges and identification of students with specific language and reading difficulties. These include identifying children with reading problems, Runo (2010); the relationship between reading dyslexia and academy performance, Kaluyu and Ooko (2016); Ooko *et al.*, (2019), (2013), Mwangi (2013), a study on dyslexia among primary school pupils in Western Kenya, Kenya Kiongo and Ondieki (2013), and use of the Burt Reading Test to pupils in class 2 and 3 in a Nairobi Primary School, Kumar and Cheruiyot (2015). Abuodha, Opiyo and Odongo (2019) in their study of dyslexia and ICT dyslexia focused on the need to develop ICT enhance memory tool to aid pupils with memory retention. Although these reviews indicated significant progress on dyslexia studies in Kenya, there was none on structured literacy for comparison or review.

Although not widely known or used in Kenya, the Orton Gillingham approach can be traced back to the 1930's and 1940s and is a teaching program that has been in existence and used globally. *The Remediation, Evaluation and Advocacy for Dyslexia (2019)* notes that this intervention has been in existence for over 80 years. Named after the pioneers of the approach, Samuel T. Orton (a doctor) and Anna Gillingham (educator and psychologist), the method follows principles of remediation from neuroscientific research done as early as 1925 when dyslexia was identified as a reading disability and who as a team by 1930 had

developed foundational materials for teaching pupils with reading challenges. As research in underlying reasons for inability to acquire literacy skills continued to evolve, the multi-sensory approach pioneered by the two gained ground and enabled students with reading disabilities acquire phonemic awareness and master reading skills through the incorporation of all senses including movement, touch, sight and hearing, making it highly effective because a child with reading difficulties is able to see, sound, write and this has been proven to promote great mastery of literacy skills.

This teaching approach or method that is tailor-made is used to teach individuals and groups at all reading levels. The method uses action-oriented activities that are used concurrently and that use auditory, visual and kinesthetic aspects to complement and reinforce each other. Often this approach to teaching is used for students with different types of reading challenges and difficulties with language processing including decoding, spelling and writing. More often, these challenges have been associated with children with dyslexia. The Orton Gillingham Multi-sensory Approach has thus been used to teach students with specific learning disabilities and has been mostly associated with teaching children with dyslexia. Although there is ongoing research on the effectiveness or ineffectiveness of this approach, a number of ones that have been done are analyzed as follows:

Sayeski, Gentry, Davis and Calamari, (2019) identify the Orton Gillingham as an approach to teach pupils with reading disabilities and used to remediate difficulties that pupils with dyslexia face. The review does not take into account that this approach can be used impart skills that would empower teachers to use new strategies to enhance and correct reading difficulties broadly and not just for learners with dyslexia.

On the other hand, Ring, Avrit and Black (2017) prescribes a revision of the existing Orton Gillingham treatment for children with dyslexia and the need for qualified support while seeking intervention informed by intervention research while Stevens, Austin, Moore, Scammacca, Boucher and Vaughn (2021) examine the effects of OG in addressing reading challenges through methods that can work for them. They note the need for bigger to get a clearer picture of its impact.

Bernadowski (2017) notes the effort of teachers in the U.S schools to meet the changing diverse classroom populations using a qualitative case study to examine the self-efficacy of teachers who were trained on methods that work for pupils who have challenges acquiring literacy skills to teach phonics using a structured literacy tutoring program with results indicating that sufficient teacher's training increased teachers self-confidence which had a ripple down

positive effect in improved instructional planning, implementation and student's achievement.

Lim and Adam (2015) observe the lack of empirical support documenting effectiveness of OG for remediation of dyslexia despite its widespread use and successful implementation in Singapore in a study that showed significant improvement in students standardized tests in spelling and reading among students with dyslexia and an inverse relationship between ages. Results indicated its effectiveness difficulties and the importance of dealing with this in early school years. Similarly, Hwee and Houghton (2011) examine the effectiveness of Orton-Gillingham following a year empirical evaluation using the OG instruction-based reading intervention program with a hybrid pre-test and post-test primary school children experimental group to inform analysis with results revealing significant improvement in word recognition, word expression and reading scores.

Lee (2019) reviews how the OG can be used to teach Malaysian students with reading difficulties Zascavage, McKenzie, Buot and Woods (2012) explore the use of the OG to correct word identification and correction Wang, Dawson, Saunders, Ritzhaupt, Antonenko, Lombardino, Keil, Agacli, Luo, Cheng and Davis (2018) note the lack of research on how people with individual differences, especially those with dyslexia learn with multimedia materials and how they can benefit from Multisensory approaches and to successfully master reading, writing, spelling, word-recognition and phonological decoding with on screen test indicating superior performance in recall especially where pictures facilitated recognition and validated the multimedia principle compared to spoken and written text

Spear (2019) notes structured literacy as most appropriate to teacher pupils with reading problems while Sheffield (1991) the importance of the OG in teaching pupils with reading challenges This is especially important because this approach to reading, writing and spelling can be broken down into manageable skills and progressively developed. Hence, giving room for learners to grasp literacy content and develop confidence through repetition and practicing with material developed by a trained an experienced OG tutor.

Hazoury, Oweini and Bahous (2009) identify the appropriateness of the OG in the crafting of lesson plans and teaching of learners with reading challenges. Cox (1985) observes that the Orton Gillingham based strategies are actually an extension of the Alphabetic Phonics Child's Multisensory teaching method developed deliberately for the remediation of children with dyslexia with evident success reported in small and large groups in regular primary school classrooms.

In some instances, success with the Orton Gillingham Approach has been noted where there is committed and consistent parental involvement. For example, Biasotto, (1993) documents the success of a mother of a son with dyslexia using the OG approach and her effort to have public schools adopt this approach and include volunteer tutors and teacher training to help in its effective implementation. Thus, the need for teachers and educationists to continuously upscale their teaching methods from best practices and strategies that work including advancing teacher training, creativity and adopting new teaching strategies and methods and research to comprehend and be at par with current global trends in literacy. This is possible through continuous research and updates on evolving strategies in teaching that work for different categories of learners with reading challenges to keep up with current best practices.

Vickery (1987) note successful use of the Orton Gillingham noting marked improvement for both remedial and non-remedial students. Sparks, Ganschow, Kenneweg and Miller (1991) present the Orton – Gillingham Approach as one that can be effective for teaching pupils with dyslexia and which has been successfully used to teach Spanish.

The challenge in the Kenyan context especially in public primary schools is that they have not undertaken teacher training or insets on Orton Gillingham methods and are therefore not knowledgeable on Orton Gillingham methods. Coupled with inadequate infrastructure, lack of appropriate resource and disproportionate student- teacher ratio leading to teachers being overworked and overburdened makes it difficult to implement methods that would require giving one to one attention to students requiring specific attention to master basic literacy skills.

METHODOLOGY

This qualitative study used content analysis to explore the Orton Gillingham Method to teach pupils with reading disabilities such as dyslexia. The study analyzed various studies that have been done on the appropriateness and effectiveness of the Orton Gillingham method and its application and relevance to the Kenyan school context. Academic papers and scholarly articles on Orton Gillingham method that were relevant to teaching structured literacy skills to students in Kenyan public schools were reviewed. This included reviews from studies on how the Orton - Gillingham (OG) has been used successfully and unsuccessfully teach pupils with reading disabilities like dyslexia.

RESULTS

Reviewed research on the OG had findings by Stevens *et al.*, (2021) indicated slight but not significant improvement in its effectiveness. There were no

significant outcomes in the improvement in phonological awareness, fluency, comprehension, vocabulary and spelling thus the need for more high quality and rigorous research targeting larger samples to inform better understanding of more tangible effects of the Orton Gillingham program. Vickery *et al.*, reported improved test scores for remedial and non-remedial students in public schools in California from the Orton Gillingham approach in a four year study. Further findings indicated improved baseline scores pupils who had received instructions using the OG method.

Findings by Sayeski *et al.*, (2019) note the importance of the OG as a teaching approach that should be used by teachers but that it has incorrectly been described. He reiterates that a grasp of the OG would provide some grounding to help special needs educators have a better grasp of the foundational elements of literacy instructions, thus the need to engage teachers of English language in professional development and training to enhance their skills and capacity to make a difference to the way structured literacy can be taught successfully to learners with reading disabilities. Ring *et al.*, (2017) had findings demonstrating little evidence to support the use of the Orton Gillingham instruction noting the limited number of research on OG requiring more research and reexamination of the Orton Gillingham interventions for more effectiveness.

Findings by Bernadowski (2017) from semi-structured interviews with 15 teachers who had used the Orton Gillingham method indicated that their level of confidence had increased and that they were more self-assured and self-aware after receiving training on specific pedagogical techniques to teach pupils with dyslexia. Other results showed that the Orton-Gillingham approach can effectively be used to teach second languages like Arabic and Spanish. There was no Kenyan literature on the Orton Gillingham method available for review.

Additionally the results indicated that a number of teachers who had undertaken training in the Orton Gillingham method had acquired training and certification that empowered them to teach children with reading literacy challenges making it possible for thousands of such pupils to access regular classrooms and learn successfully using auditory, visual and kinesthetic alternatives to reinforce mastery of their skills in literacy.

Other review results indicated effectiveness of the Orton- Gillingham Approach in helping pupils identify letters and sounds and that students who were taught using this method could apply the skills they had learnt in learning to read.

CONCLUSIONS AND RECOMMENDATIONS

The Orton Gillingham is a method that requires skill through specialized training including preparation of lesson plans and evidence-based resources and in instances where a child has been diagnosed with dyslexia, there is the extra requirement of crafting an Individualized Education plan, tailored to suit the specific needs of such a learner. In addition to this the development of resources used to teach the Orton Gillingham method need time, energy and teachers who are creative and self-driven that can be upscaled through continuing education beyond the diploma and Bachelor of Education or Special Education degrees. Moreover, with online teaching and learning taking root as a result of the Covid 19 Pandemic, opportunity for thousands of online resources are available that can be shared globally among teachers, experts and educators on effective strategies and methods that work. Teachers in Kenyan public primary schools should thus embrace continuing teacher training, learn and embrace new methods such as Orton Gillingham that have been successfully used globally to remediate challenges that students with specific education needs such as dyslexia can be supported to learn to read and acquire basic literacy skills. If this method is adopted, in addition to supplementary activities, students with reading challenges could benefit more meaningfully from mainstream public classrooms

RECOMMENDATIONS FOR FURTHER RESEARCH

Up scaling teacher training capacity from early childhood education and Special Needs Education from best practice reviewed would equip teachers with further training on appropriate contemporary methodologies that have worked through workshops and insets, appropriate methodology. In addition to this, it would provide them with skills for tailor-made curriculums with Individualized Education plans which are critical for students with specific education needs. An application of the Orton Gillingham is one that can successfully be applied using not only a one to one tutoring and small group approach but this method can also be used in mainstream classroom.

To succeed in school students with specific learning needs need systematic instructional programs that are planned according to individual pupil needs. It is important to plan for this in terms of teacher training and done collaboratively by general and special needs teachers, thus the need for refresher courses for teachers who have already graduated and already teaching.

Orton Gillingham method can be used concurrently with other methods that work for pupils with reading disabilities like dyslexia. This includes allowing the pupils to use audio books as an alternative

to reading verbally, typing on a computer or tablet instead of writing, using apps that can make learning fun by converting decoding into games. Teachers and specialists trained in the Orton Gillingham method can then combine sight, hearing, touch and movement in everyday classroom instruction to aid pupils with and without literacy challenges decipher relationships between sounds by seeing and sounding which can enable them connect and acquire complete mastery.

The Orton Gillingham is an important tool that should be used by educationists, regular classroom teachers, special education needs teachers, public and private schools, institutes and centers for special needs education because it provides a roadmap that enables students learn and acquire early skills necessary in reading.

Although teachers in Kenya have to cope with large classrooms, strict lesson plans, programs of study disproportionate teacher – student ratio, and limitations of time in relation to the syllabus that should be covered in the curriculum in a general education setting it might appear unrealistic to apply the Orton Gillingham method especially to pupils with specific learning needs who often require one to one attention. However prior planning would enable instructors to prepare educational materials which they can apply progressively as they build on each other in ways that can enable individual students attain mastery on their own individual timelines to ensure that no child is left behind. Moreover, research shows that Orton-Gillingham strategies not static. Their dynamism makes them flexible enough to be used progressively and continuously over time in every classroom.

In addition to this, Specific Education Needs Resource Centers could be set up by county governments and non-governmental organizations in each of the 47 counties. They could collaboratively organize insets, trainings for private and public school teachers, educators, experts and parents. In these trainings and forums, trainings, tutoring and outreach programs can be modelled on how pupils with specific education needs can be best assisted and where awareness of the needs of these pupils.

There is need for Kenyan scholars to carry out research on the Orton Gillingham approach to structured literacy as a powerful tool and strategy that empowers instructors to develop structures, individualized and multi-sensory plans to effectively teach reading and language skills to pupils with specific education needs. This can be recommended for policy change especially with the introduction of the Competency Based Curriculum (CBC) that has the potential to revolutionize teaching of literacy to pupils with specific learning disabilities if implemented in mainstream public classrooms.

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