

THE EFFECTS OF DYSLEXIA ON LEARNING**Bessan O. Shroof, Dana A. Alzarooni, *Khuloud A. Qawam, Shaikha N. Alshamsi and Shamma R. Falasi**

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Abstract

The present research looks into the effect of dyslexia on learning, and different methods on how to help students in different levels of education, as well as their effect on self esteem. A number of dyslexic people between the ages of 16-24 from Australia, UAE, and America were surveyed with questions related to dyslexia and its effect on their daily life. Overall the results of the questionnaire showed the damaging effect of dyslexia on students self esteem, and that their learning was only affected when teachers weren't accommodating to their situation. People who filled the questionnaire faced specific issues that include spelling issues, grammar issues, public speaking problems, and problems associated with directions and math. Only half of the people that filled the form said that their teachers were accommodating. These same people are the ones who had more self confidence and higher self-esteem. In the end, all of the students were in agreement that faculty members should be more accommodating to their situation. They can do that by offering them extra time to complete assignments and tests or use more dyslexic friendly fonts in presentations. They can also help by simply not making the students feel bad about not being as academically advanced as the rest of the class and to stop any bullying that may occur.

Keywords: Dyslexia, Phonological Dyslexia, Visual Dyslexia, and Physiological.**INTRODUCTION**

Overcoming hardships has a vital role in life; however, some of these problems may be continuous or defeated at some point. Psychological disorders have developed many difficulties that tarnishes and affects the view of life. Such ideas impact many aspects of life, including personal and social life. The outer world sees such people as a burden and a heavy load to the society in which they live. At some point, they do not consider them nor appreciate their work because, in their perception, they are not like the rest. Some mental disorders and learning disabilities might impact the way students and learners receive information since they are not considered from the norms. As stated by Hubbard (2012), dyslexia is one of the main problems that directly affect learning in reading and recognizing words. Addressing such illnesses makes it easier for people to reach out to solutions that benefit the people suffering from them. This idea is of such importance since many children have been diagnosed with it. Over the past few years, some studies have been conducted to assess how this disability affects learners. According to some studies learning more about this disability can help us understand the affected minds and help them overcome these obstacles (Hubbard, 2012). According to Sheikh Zayed (2008), learning is an important and crucial part in a human's life, this is because people rely on their education to live their life and make the choices that they think are right. Due to the importance of learning, people should seek the best ways of learning. "Learning is an essential aspect of life, as people depend on their education to make a living and make the best choices. Because knowledge is fundamental, people must find the best ways to learn." Said Sheikh Zayed in an interview in 2008. Unfortunately, this has not been how many students with learning disabilities have been treated in the past. Martinelli claims that dyslexia affects a fair number of people, the majority of them are kids, so there have to be different

solutions that make it easier for them to cope with their hardships and find ways to make learning more untroubled. Around 5-9% of the world's population suffers from a learning disability, and 10-15% of that population suffers from dyslexia. That makes almost 700 million people struggle with memory, organization, time-keeping, concentration, multi-tasking, and communication. These problems affect them in their day-to-day life, making the completion of essential functions and tasks harder than the average person (2007).

Statement of the problem

Despite this being an important issue, many parents are struggling to get a proper diagnosis and treatment for their children. Refusal to acknowledge this issue leads students to go on with their school careers without ever receiving any special care or treatment. This will lead to low self-esteem and deny them their right to a good education.

Objective of the Study

In this research, the definition of the term dyslexia and its different types and levels will be mentioned. This study will also mention the effects of dyslexia on learning inside or outside of a classroom. Different ways of raising awareness and the best ways to help overcome this problem, are to be focused on. There will be examples of people who originally suffered from this disorder. The approach that schools took will be looked upon, as well as its effects on self-esteem and on their social and personal life. In the end, there will be a few research questions that are to be answered.

Research questions

The researcher attempts to answer the following questions:

- What is dyslexia?
- How can dyslexia affect the person's life?

- How can a school environment affect a person with dyslexia?

Overview of the Structure

The first chapter introduces the effects of dyslexia on learning. It also presents the statement of the problem, object of the research, the research questions, and the overview of the structure. The second chapter discusses the definition of dyslexia as well as its origin. The different types of dyslexia have also been added with their definition in the other part of the chapter. Following it is the struggles that dyslexic people face in everyday life and its effect in classrooms and everyday life. We can also see how dyslexia affects a person's self-esteem in many forms. Chapter three, focuses on the methodology and description of the data. This chapter aims to reveal the tools used to find out how dyslexia affects their academic life. It includes the data collection and descriptions, methodology, rationale of the study, and the procedure of the analysis. Chapter four, focuses on the methodological choices of the analysis. It covers the analysis of the effect of dyslexia on learning. It focuses on the methods used to help students in an academic set which will help teachers understand the difficulties that students face throughout their daily life. This research analysis questions that students answered which related to their daily life experiences.

LITERATURE REVIEW

Definitions of Dyslexia

The term Dyslexia is derived from the Greek words “dys”, which refers to difficulty, and “lexis” which refers to words. In November 12, 202, the International Dyslexia Association defined dyslexia as, “a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities” (Bates, 2013, para. 2). Adopted in 2009, the British Dyslexia Association Definition of Dyslexia, “is a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling” (para. 3). As of May 2013, Mayo Clinic identified Dyslexia as “a learning disorder characterized by difficulty reading. Also called specific reading disability, dyslexia is a common learning disability in children” (para. 5). Finally, by 2020 Snowling, Hulme, & Nation (2020) mentioned that “In summary, dropping the IQ-discrepancy definition of dyslexia has proven controversial for many, particularly for those who see ‘dyslexia’ as a special category of disorder and reject the view that it is only a reflection of poor reading” (para 7).

Types of Dyslexia and their Definitions

Dyslexia is a psychological disease that affects people in many different ways. Dyslexia falls into many branches including phonological, surface, visual, primary, secondary, and trauma dyslexia.

Surface Dyslexia: According to Meredith Cicerchia (2021), surface dyslexia is characterized by the difficulty to distinguish usual and mutual words by sight. This type of Dyslexia makes a person take longer to distinguish some words directly, without the need to pronounce the word loudly. Scientifically spoken, it has been shown that the brain has a tough time recognizing certain words. Surface dyslexic people have a hard

time with some words that sound different from the way that they are spelled. Such examples include queue, mortgage, language, and many more (Cicerchia, 2021).

Visual Dyslexia: Visual Dyslexia involves features of the inability of the brain to capture and obtain the exact picture that the eyes are seeing. This type of Dyslexia is focused on visual processing that is either cognitive or neurological. This will result in difficulty to spell words as well as some letters (Cicerchia, 2021).

Phonological Dyslexia: Phonological Dyslexia results in extreme difficulty in reading due to the hardship in identifying different sounds from everyday spoken language. It becomes strenuous on the person to break down the speech into simpler sounds. It is a neurological disorder that affects the side of the brain that is responsible for recognizing sounds, which in return affects reading abilities. Generally, it is an inherited condition through genetics, but it can be acquired through stroke or Alzheimer's disease (Cicerchia, 2021).

Primary Dyslexia: Primary Dyslexia is the most common form of dyslexia and it is passed through the genes; it is an inherited condition. It occurs mostly in boys rather than in girls, and if the correct measurements and fast action was taken to aid in the education, then it would be easier to cope with learning and reading. The severity of this type of dyslexia is different from one person to another. It occurs as a result of the dysfunction of the left side of the brain and is not affected by the age of the person (Cicerchia, 2021).

Secondary Dyslexia: Secondary Dyslexia is known to be caused by problems with the growth of the brain during the early stages of the baby's development. It decreases as the child grows and also occurs most commonly in boys (Cicerchia, 2021).

Trauma Dyslexia: Trauma Dyslexia occurs after the brain experiences some form of injury or accident that affects the area of the brain that is mainly responsible for reading and writing. It rarely occurs for kids of the current ages. (Cicerchia, 2021)

Effects of Dyslexia Inside and Outside the Classroom

Dyslexia might cause many difficulties during school, work, and even everyday activities. Difficulties might occur in multisyllable words that are included in scientific studies such as veterinarian as well as hippopotamus. Difficulties might occur in multi step activities or tasks that are involved with mathematics. Some students might face difficulties in following written directions found in GYM halls or even textbooks. Learning a new language might also require a lot of effort and time since the brain struggles to structure the new information. Learning new terms will also create frustration and difficulty since they are unable to organize such data and knowledge (Cicerchia, 2021). Having dyslexia is not easy. Even short easy tasks can be difficult to perform. Certain dyslexic people face difficulty in understanding what the teacher said, in addition they might face difficulties in remembering where things are kept. When texting, dyslexic people will face difficulties and face embarrassment for writing understandable words. Some people might suggest using an autocorrect, but unfortunately sometimes the words can be misspelled in a way that the autocorrect cannot process.

Booking, for a flight or even a stay at a hotel, might create uncertainty and hardship. This is because a change in a word or number might cause a change in timing or setting. For instance, changing the “p” in pm into “a” in will create a great difference. Difficulties in the following direction might occur, since some dyslexic people cannot differ between the term “right” and “left” (Cicerchia, 2021).

Dyslexia’s Effects on Self-Esteem

Individuals who have dyslexia often have a problem with low self-esteem. This usually comes from a struggle of loneliness and frustration they have experienced in their lives. According to Michael Ryan (2003), “The struggle of meeting people’s expectations is blocked by the dyslexic’s inability to achieve their goal. They grow up believing that it is “terrible” to make a mistake.” As the difficulties continue, the child may believe the subject of the problem is them not being smart enough or being incapable of performing tasks that require words, therefore, the child’s self-esteem declines. Low-self esteem could lead to a lack of courage to try out new things and may not reach their full potential. In other cases, having to work harder than someone who doesn’t have dyslexia, in order to achieve the same thing may lead them to be overtired. This usually happens to dyslexic children who are not identified with having dyslexia disorder and have not yet received professional help from a dyslexia tutor or dyslexia treatment program. If the child was recognized as having dyslexia earlier, then the self-esteem drop could have been avoided.

In such an instance, the child will have acquired a good understanding of their form from their dyslexia tutor and be more comfortable in their ability. Other forms of affecting a person who has dyslexia self-esteem, is how society views them. There is a lack of understanding of what dyslexia is and how to help someone who has dyslexia. Society can view people who have “abnormal attributes” like dyslexia as a “social disgrace” and that affects a person’s confidence in themselves. Labels that come in to manifest such as “children with learning disabilities” can make someone who has dyslexia feel discouraged and uncomfortable with such labels. It can lead the individual to hide their dyslexia and stress if someone finds out. In general, anyone who has dyslexia may perceive themselves negatively as someone who is not smart enough or not like the rest. It can cause confusion, anger, anxiety, and a feel of hopelessness. People who have dyslexia may close themselves off from the world because they feel as if nobody understands them because of how low their self-esteem is and the feelings of not “good enough”. Going back and forth between them often gives further negative thinking. Some may experience behavioral problems, high levels of stress, and poor mental health.

Methods Taken to Teach Dyslexic Students

Dyslexia is not a disease, not a vision problem, but it is a neurological issue that cannot be cured. People with Dyslexia can learn different ways to be good in their academic and professional life like trying different methods to learn instead of the normal teaching and schools can approach their Dyslexic students in many different ways. There are many approaches that a teacher can take to try and help their dyslexic students by using different methods to teach them like the Wilson approach, the Orton-Gillingham approach, also known as the Lindamood-bell approach was founded in 1948. Some

schools might not have the right material or thing to help a dyslexic student, but they can also use different methods to help a dyslexic student. For example, give a dyslexic student more time to solve their test or even complete their task, they can use apps where the student can listen to the book or hear the audio so they can process the information better.

Procedures Taken to Teach Dyslexic Students

Smith suggested procedures schools should do to help a dyslexic student for example: explain and simplify the steps, give them fewer tasks or work in class so they don’t feel anxious, if the dyslexic student gets distracted easily you can also take them to a quieter place so they can focus on the test, the teacher can help the dyslexic student by highlight important information so it is easier for the dyslexic student to understand; the teacher should also try to give the dyslexic student more practice by involving games, computer programs, and additional worksheets to help them understand better; the teacher could also use an audio recording device so the dyslexic student can replay the tape whenever they don’t understand or when they miss out some information (2016). Schools should try to do their best to help the dyslexic student to succeed even though their brain works differently many other people can benefit from the other methods that are used. It is not easy for a dyslexic student to understand what is happening in class so it is better to give him/her extra class so they can catch up with the other students. Teachers can approach the student in many different ways to teach a dyslexic student and one of the methods or approaches used is the Orton-Gillingham approach. Orton-Gillingham approach is used for people who cannot read, spell, and write. Orton-Gillingham’s approach lets the dyslexic student use their visual, auditory, kinetic sensory. Some examples of famous people who have dyslexia are Whoopi Goldberg, Daniel Radcliffe, Steven Spielberg, Tim Tebow, Henry Winkler, Keira Knightley, Jamie Oliver, and more.

Spreading Awareness for Dyslexic People

There are many ways that you can spread awareness about dyslexia like learning and searching about dyslexia. The individual should also educate themselves and understand what dyslexia is, the individual should also try to speak about dyslexia to other people and educate themselves about what it is and how to approach the students. They should especially do this if they are teachers so that their students are able to understand what it is and let them know that this is not a disease but it is related to an individual’s neurons. The individual should also try to be part of an organization that supports dyslexic people and they can also sign up for classes and see how they approach a dyslexic person in their class and try to help in them and support them and always be by their side so they can achieve anything they want like the famous people who were mentioned previously. The people who have dyslexia should embrace it and talk openly about it so that people understand what they go through in their lives and understand that it is a struggle for them.

METHODOLOGY

Dyslexia is a disorder which was not brought up or looked upon by society. As a result, parents struggle to find the right diagnosis and solutions for their children. This affects the child in school and brings down their self-esteem as they are not

being taken care of in terms of studying and grasping the lessons. This research answered multiple objectives starting with the different types of dyslexia as well as its levels; how learning is being affected inside and outside of the classroom due to dyslexia; ways to help control this problem and raise awareness; cases of people who endured dyslexia; schools' actions towards taking care of dyslexic cases; and how dyslexia affected people's daily lives and self-esteem. Multiple questions were answered in this study starting with how dyslexic people are treated compared to others; the meaning of dyslexia; how to cope with dyslexia; how dyslexic lives are affected; if dyslexia can be diagnosed and treated; how dyslexia progress as the person gets older; how school affects dyslexic people; and how can awareness about dyslexia can be raised.

Data Collection

Certain methods were used to collect this data. We used technological approaches such as Google Forms. Twenty two direct messages were sent using social platforms like TikTok and Instagram to certain dyslexic people that used the hashtag "dyslexia". First, the approval of the participants was received via forms before filling the rest of the survey. Participants were informed that this research was conducted by undergraduates as a partial fulfillment for their graduation project on the effect of dyslexia on learning. A form was then sent to each participant with eight questions that included answers about their life in school, self-esteem, their definition of dyslexia, as well as how the education in their country can be improved to help people with the same issue.

Data Description

The main method of data collection used was interviews and questionnaires. This method can be described as qualitative research. Qualitative research normally relies on non-numerical data. That usually includes interviews and collecting descriptive data rather than numerical data. In order for this research to be authentic, students and recent graduates from different regions that were willing to help us out with this research were contacted. All of their answers to the research questions were collected and their responses will be discussed throughout this research.

Rational of the Study

Dyslexia is a disorder that affects the ability to read as it is associated with words. It mainly affects children, and may progress with them as they age. Because it is not the society's concern, we chose to research it and bring people's attention to it in order to make it easier for people to find solutions to their problems regarding dyslexia. Certain types of questions were chosen to answer specific parts, understand different aspects around it, and find solutions to help dyslexic people. The main concern is to answer questions regarding how dyslexic people cope with dyslexia, how they are being treated, and whether they are getting the help that they need. (People in this generation are more open to finding innovative ways to help dyslexic people without making them feel in a way that will offend them. So this research will help the reader understand how to help and it will give them different ways to approach a dyslexic person and help them through their journey through school and help them survive in this very crucial era.)

Procedure of the Analysis

Based on responses the survey has received, dyslexia often affects an individual's attention span and coordination as it is difficult for the person to stay focused without being distracted or being in control of their movements, such as knocking off things or getting similar things wrong. There are different types of Dyslexia that are found in the survey and most have been diagnosed at a younger age as well as it gets more progressive the older they get. The disorder tends to affect the person's academic performance; however, some consultants and teachers help with their struggles while others give them a difficult time. To be able to conduct authentic research a questionnaire has been sent to a group of people who struggle with dyslexia. Once all the questionnaires have been returned their answers will be analyzed and compared so that the effect of dyslexia on students learning can be determined.

FINDING AND CONCLUSION

This section presents the findings and the conclusion of the study. The chapter commences with a brief discussion of the research findings as provided for in the research questions. The following section presents the implication of the study, and recommendations for further research.

SUMMARY OF THE FINDINGS

The questionnaire showed that students who struggle with dyslexia aren't less intelligent than any other student, yet they are treated that way by their teachers and their peers. Students with dyslexia often don't find out how truly smart they are until after highschool when their life isn't determined by grades anymore. This is the unfortunate reality of being a student with dyslexia, when teachers don't try to help or accommodate them in school. The lack of support doesn't just affect their learning for the period of time when they are in school, but it also affects their self esteem for the rest of their lives. One of the women that filled the questionnaire said that she doesn't ask people for help in her work in fear that they will make fun of her for having lower academic abilities. This doesn't mean that she isn't smart, it just means she didn't do as well as her peers in highschool. All of the students who filled in the questionnaire agreed that dyslexia is an extra obstacle they need to go through, but with the right teachers they can do as well, or even better, than their peers. All of these students have the ability to do well, but only if their teachers provided them with the tools to be able to do so. Most students who struggle with dyslexia do very great in other things such as in sports or in arts. These talents and skills are dismissed by teachers because they are not viewed as practical. When students hear things like that in their youth it takes a toll on their mental health and their motivation to do well in school, when no matter how hard they try, it doesn't seem to pay off. This is exactly why teachers should be trained in helping students with dyslexia.

Implications of the Study

The research and the study of the effects of dyslexia on learning can be beneficial to educational psychologists. Neurologists may also benefit from this research as it is a disorder that mainly originates from the brain. Parents that have dyslexia in the history of their family or parents with

dyslexic children may also find the presented information helpful and beneficial. Teachers, who soon will be teaching dyslexic students might also make use of the data presented in the research. Also, other students who are interested in the study of dyslexia will certainly benefit from the study shown.

Further Research

In this research, it would be beneficial if more responses of the survey were attained to elaborate more about the topic discussed and it would also give a better conclusion to the study. Furthermore, if we had interviews with dyslexic people as well as specialists, the research would have held more viewpoints and the research would have led to detailed conclusions.

CONCLUSION

The relevance of the research and propositions for further research were stressed under this part. The findings of this study might be helpful to parents with dyslexic kids and people requiring information related to dyslexia. The resourceful intervention of the contribution made by this study would hope to bring up new facts on the effects of dyslexia on learning. There are many different types of dyslexia and they affect students in many different aspects of their studies. Some students struggle mainly in mathematics, while others in spelling or directions. Regardless of the kind of dyslexia it has a negative effect on their learning. Schools and teachers should be more accommodating to these students to help them succeed in their studies and in their future.

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