

on Dyslexic Adult : A Case Study

By Dr. Alia. B. Abdullah, Dept of English, College of Arts,
University of Basra, Iraq

Abstract : Dyslexia is a general term for disorders that involves difficulty in learning to read or interpret words, letters and other symbols, but this difficulty does not affect general intelligence. The case, the researcher is going to deal with is a girl. She was only diagnosed with dyslexia as an adult. At school, she never seemed to achieve really well academically. She got lower marks than all other girls in her class. She was slower learner. She realized how much she struggled to express her thought or knowledge on paper. With the continually research and reading through other studies on such cases, the researcher found that there should be a way to get through this difficulty and to make a dyslexic acceptable socially and academically. While researching , the researcher read about Pareto's Principle (the 80/20 rule). This rule should serve as a daily reminder to focus 80 percent of the time and energy on the 20 percent of the work that is really important (focusing on the right things).

The researcher tried applying Pareto's Principle on her case during her middle term examination. The result was much better than it

could be expected. Her marks became higher than before. She learned more. She became more confident in her knowledge.

1– Introduction: The word dyslexia comes from the Greek language, which means “difficulty with words”. Dyslexia is defined as a “language – based learning disability which refers and results in people having difficulties with specific language skills, particularly reading. Students with dyslexia may experience difficulties in other language skills such as : spelling, writing and speaking. Dyslexia is a life-long status. However, its impact can change at different stages in a person’s life. It is referred to as a learning disorder or disability because it can be difficult for a student to succeed academically in the typical instructional environment (Lam, 2001:1).

The Pareto principle, also known as the 80/20 rule, states that 80% of results are attributable to 20% of the causes. The Pareto principle is going to be applied in teaching a person with dyslexia in learning material of several examinations. The case the researcher is going to deal with is a young girl who is dyslexic and tried to go back to school and to succeed academically. This paper falls into six sections: Section one is the introduction. Section two discusses dyslexia (causes and effects). Section three presents diagnosis and treatment of dyslexia. Section four deals with Pareto principles. Section five talks about the case of an adult girl who had been suffering from this situation. Section six sums up the prominent results of the study and offers few solutions to similar cases.

2- Causes and Effects of Dyslexia: According to the International Dyslexia Association (IDA 2001), the real causes of dyslexia are still not completely clear. But recent studies on dyslexia assert that it results from heredity factors and the environment in which the person lives. The recent developments in anatomical and brain imaginary studies show that there are differences in the way the brain of a dyslexic person develops and functions. It has been found that people with dyslexia often have problems with discriminating sounds within a word , which is a key factor in their reading difficulties. However, it has been proved that dyslexia is not due to lack of intelligence or desire to learn. An inspiring sample of some self-compensated famous and successful dyslexics (Einstein, Edison, Davinci.....).

Dyslexics can learn successfully through using appropriate teaching methods. Recent studies on dyslexia assert that it results from heredity factors and the environment in which the person lives (Lyon, 2005). Some people are identified as dyslexic early in their lives, but for others their dyslexia goes unidentified until they get older. Moreover, people who are very bright can be dyslexics. They are often gifted in areas that do not require strong language skills, such as sports science, arts, politics, design, , electronics, mathematics, music, drama sales,etc.

The most common effects are problems with reading, spelling, and writing. Besides, dyslexics can find it difficult to express themselves clearly or to fully comprehend what others mean when they speak. Such language problems are often difficult to

recognize, but they can lead to major problems in school, and in relating to other people. The effects of dyslexia reach well beyond the classroom. Students with dyslexia often end up feeling “dumb” and less capable than they actually are (Guardiola, 2001:2).

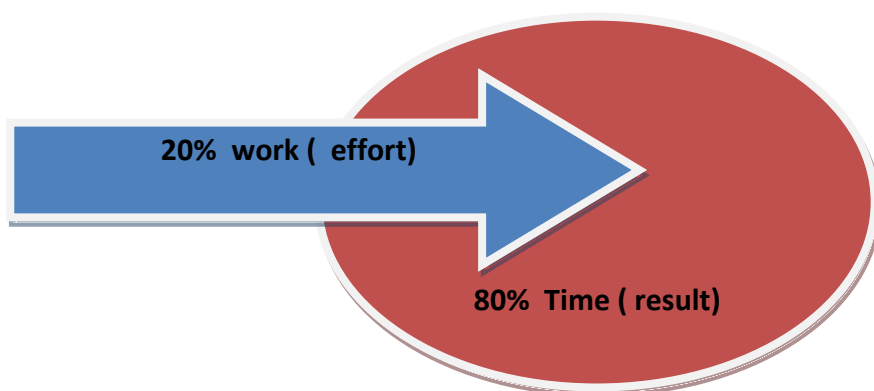
3– Diagnosis and Treatment of Dyslexia : People with dyslexia have difficulties in learning to read, organizing written language, recognizing letters and their sounds, memorizing numbers, spelling and learning a foreign language. Specialists assure that there are certain procedures that need to be taken in order to discover if a person is dyslexic or not. These procedural steps include: the evaluation assesses intellectual ability, information processing, psycho– linguistic processing, and academic skills. These procedures are used to determine whether or not a student is reading at the expected level. Thus, the test can be conducted by professional trained specialists in or outside schools. Specialists assert that it is a life–long condition, but with proper help, people with dyslexia can learn to read, spell and write well. Thus, early precautions such as identification and treatment is the key to help dyslexics overcome this disability and do well in school and in life. Most people with dyslexia need help from a teacher, tutor, therapist specially trained in using a multisensory, structured language approach. For students (with dyslexia), it is helpful if their outside academic therapists work closely with classroom teachers. Schools can implement academic modifications to help dyslexic students success. Such students can be given extra time to complete tasks, or help with taking notes or appropriate work assignments.

Students can benefit from listening to books on record and from writing on computers.

4- The Pareto Principle (the 80-20 rule) :The Pareto principle (also known as the 80-20 rule) , the law of the vital few, and the principle of factor sparsity) states that, for many events, roughly 80% of the effects come from 20% of the causes (see the figure next page). The principle is named after the Italian economist Vilfredo Pareto, who observed in 1906 that 80 percent of the land in Italy was owned by 20 percent of the population. He also noted that 20% of the pea pods in his garden contained 80% of the peas (https://en.wikipedia.org/wiki/pareti_principle) .

The 80/20 rule can be applied to almost anything (e.g. school). Because , during periods of stress, the brain can function at over 80% of its capacity, with very few , if any, positive results..... What it means? The 80/20 rule means that in any set of circumstances, a few factors (20%) are vital.

Figure
The Chart of Pareto's Principle
The 80/20 Rule



Methodology: The issue explains the general tendency. We have to repeat the same things , in the same ways, to produce the same negative results, while utilizing the same system: the brain (hardware) and mind (software). Without a proper upgrade, it is impossible to make that quantum leap and "think outside of the box!".

Pareto's principle, the 80/20 rule, should serve as daily reminder to focus 80% of your time and energy on the 20 % of your work that is really important. Do not just work smart , but rather work smart while focusing on the right things. Even when working with those who intellectually understand the 80/20 rule, we have rarely encountered a client who meaningfully applied the rule so as to more efficiently organize the work day. Why as a general rule, we find it is easy for people to recognize when someone else is efficient, yet it can be very hard to recognize this same tendency in ourselves (Yaro Starak, <https://www.entrepreneurspareto-principle>) . Accordingly , whether people understand the 80/20 rule or not , they tend to complain about not having enough time to get things done. For example: let's say that people work a typical eight –hour day. If it is true that they get 80 % of their results from 20% of their efforts , what would happen if they used laser–beam focus for 96 minutes each day (20% of eight hours) ? To give a try , get a timer and set it for 96 minuets . without interruption , focus on your No.1 priority for the day.

When people try this as early in the day as possible, before they get bogged down with emails , returning phone calls, or other

distractions. Many people who tried, said that they were amazed with how much they accomplished. People have found this method practically effective for two reasons . First: it reduces distractions that impede productivity. Second: it allows people to maximize their ability to hyper-focus and be extremely creative. Hyper -focus is the tendency to become absorbed in tasks that are stimulating and rewarding. Though they may have difficulty focusing , organizing and completing certain tasks frequently are able to focus intently on activities that interest them (<https://www.dynaread.com/accommodating-students-with-dyslexia>) .

It can be applied to the life at school and help students improve their performance by optimizing their time use. So, what is The Pareto principle distribution? If teachers apply the Pareto Principle to one of the keys of academic success, studying, they will find that they get 80% of their studying done in 20% of their time actually spent study.

Procedures : Students spend a lot of time being distracted , re-reading, thinking about other things, day dreaming about their future, or they leave to drink a coffee . Let us take a 5 hour study session at the library and break it down: 20% of 5 hours is 1 hour, so in theory, they only need 1 hour of studying to achieve 5 hours of studying. The rest of the time will be spent on their phone , checking face book, or another website. We simply have to learn how to use this energy to make the best use of the 80/20 ratio.



one thing; diversity their portfolio, so to speak. As such instead of spending the whole day studying, break up the day into a variety of activities, otherwise they will simply be hated themselves from the beginning to accomplish less. Divide the day into smaller chunks of time in which to accomplish the goals for that day. For example, let us say that students have to study for two midterms, have an experiment due, and also have some routine homework to accomplish, and let us say it is all due in a week's time. Instead of stressing about one thing over the other, allocate a balanced amount of time to each until you accomplish the task. Maximize that 20% of the time each day to achieve 80% of the work. Keep things changing to limit distractions and other contributing factors to the wasted 80% of your time. By managing the 80% waste time effectively , students can accomplish 80% of multiple things in the same time as you would normally have accomplished 80% of only one thing (www.amazon.co.uk).

Our brain latterly gets bored of doing one thing after only half an hour to an hour, so by changing up the activity, students are substantially resetting the clock on the 20% of their time to accomplish 80% of a new thing. So if they have extended periods of pleasure time , despite all that available time to accomplish whatever tasks they have, they in fact accomplish less because of the lack of motivation, the lack of importance and natural tendency to procrastinate . If they want to maximize the benefits of the Pareto Principle, simply they should do more things and manage accordingly. Therefore, during their daily routine at work , try to

introduce a bit more variety into it to reset the 80/20 clock and invigorate their mind to accomplish more in the set amount of time they have each day. Each task will feel fresh and fun , their motivation to accomplish things will increase since their list is more challenging , and they will accomplish more things in a more efficient manner.

In foreign language learning , many learners never end up using the language they have studied. They are suspended by the thought of making mistake . They do not know all the vocabularies and all the structure ,therefore they cannot speak yet. This makes learners slow down and even prevents them from ever trying. But in trying the Pareto Principle, language learners find that a certain percentage of a language is irrelevant to them in their daily life dealings. Taking this further students would be surprised to see what we can do with very little vocabularies and a good sense of understanding the context of what is going on around us and non-verbal communication. Learn 20 words now and then use out of them. Then learn more words and we will see that it is a bit easier. We will be able to keep going 80% of normal situations in that language. Successful language learners find ways to use the little they know in the maximum possible ways, this adaption of Pareto's principle is an affirmative must for people focused on reading well as quickly as possible. Essentially, Squeeze the little information currently available to us to get the best out of it.

5- The Case Study;The case study was of a female (24 years old now) who was not diagnosed by doctors (specialists–

Otolaryngologist, Pediatricists, neurologists). Some doctors said that she had a problem with her brain, others said she was a handicapped. Early in her childhood, When she was 7–9 years old, and even before that time , her parents found that she was not like her sisters and her peers. She could not speak or pronounce properly. She was only diagnosed with dyslexia as an adult. Before that her parents thought that she was aphasic (because aphasia is caused by brain injury as may occur during an accident or because of illness– as the case of this paper). She was always a day–dreamer. She never fitted in with the other kids. She was often teased . She felt dumb, depressed and isolated. She realized quite easily that she was not like her peers. She remembered having problems with numeracy and still struggles to this day. At school she could not manage to learn how to read or write properly (even her mother tongue). Reading was something she was very reluctant to do. She struggled with spellings although she worked very hard on memorizing the order of the letters. She found writing really hard. There was nothing more frustrating than knowing what she wanted to write. And as it is known that speaking, reading and writing language are the skills any student needs to learn the school's materials (Aaron, 1999: PP 67–84). In the first three grades at the primary school she could manage to succeed but hardly. Then she could not continue as the materials of the next classes became difficult and not easy to be understood. Thus, She left school and stayed at home.

Two years later , she joined an institute for children of special needs. She was not really fit , because they were handicaps of different degrees. Once again , she had to leave this institute. Three years later, she joined a primary school (which was for young girls who had been forced to leave their studies because of the different circumstances –war, terrorism, politics..... (that our country – Iraq– being through). This school consists of three levels (first, second and third). She had been accepted in the second level after she had been through a kind of test. She had been asked and read few questions about the materials she had studied previously. Two years later, she finished her study and received the degree of the Elementary school. Throughout her intermediate school life, she tried very hard , always in the top sets for Maths and English, but struggled with the basics , and still unable to do her tables, spell and hated reading aloud as the text jumped all over the place and would miss her place and get jumbled up. She loved science as she was able to see the world to take part in experiments. But her maths was letting her down , so her teachers advised that she should work harder in science courses. It was just one disappointment after another.... On leaving school she achieved an O level in Arabic and English . She certainly worked harder than most of her peers, but her marks certainly did not reflect it. Still she was undiagnosed.

Difficulty in telling events of a movie film –being watched (or as she explained lately the information is in her mind but she finds difficulty in getting them out– or finding the exact words to express)

, her difficulty with using telephone numbers were all due to dyslexia. And the list goes on. Now she tried to continue her study of intermediate level at one of the private schools in her city. But she found difficulty in learning most of the materials (specially English language as a foreign language). That was because she came cross materials which she did not study the basics of them or because of the great gap between the knowledge she had and the one she supposed to know according to her age of school) . She spent a lot of time reading, memorizing and repeating the new materials but in vain , it was so hard for her. By that time ,with the help of her parents , the researcher thought of applying the Pareto Principle (the 80/20 rule) on her. The researcher began to summarize the material to her. By explaining and concentrating on 20% of the materials . The materials of the intermediate level were (Religion, Arabic language, English Language, Mathematics, chemistry, Physics, Biology, and sociology– History – Geography.....). As it is obvious some of the materials belong to sciences while others belong to Human Sciences. The following table reveals the impact of applying the 80/20 rule in studying the materials of the intermediate level. The table also shows the differences in getting better marks that she made after following the 80/20 rule (The Pareto Principle). The result discloses the usefulness of applying such a rule (the 80/20) in learning and studying materials of an academic studies. It is going to save time and energy specially for such students with difficulty in learning their lessons easily. This is why it is good enough to be used for

students with dyslexia or who have delay in learning like their peers. And its impact can be more effective if it is applied by a specialist or a therapist.

Table

The Level of The Dyslexic Before and after Deploying the 80/20 Rule

Subjects	Weekly Hours	Types of Difficulty	Degree of Concentration before using 80/20 rule	Marks out of 100	Degree of Concentration after using 80/20 rule	Marks
Religion	Three	Linguistics	Fair	50	Fair	60
Arabic Language	Four	Linguistics	weak	34	Fair	50
English Language	Five	Linguistics	Very weak	10	Very weak	38
Mathematics	Five	Numeric and hypothesis	weak	25	Weak	40
Chemistry	Two	Terms and Chemical equation	Very weak	12	Very weak	32
Physics	Two	Terms and Theories	weak	25	Weak	45
Biology	Two	English & Arabized Terms	Weak	40	Fair	51
Sociology (Geography, History, Patriotism)	Two Two One	Linguistics	weak	35	Fair	50

6- Conclusions and Recommendations;Dyslexia is one of the most common and prevalent types of specific learning disabilities that is neurological in nature. The girl student (dyslexic) of this study had difficulties, mainly in reading, writing, and spelling. This means that she has a difficult time putting together letters to make words and sounds. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom training and instruction. Some remedial teaching support was offered to her but she believed it was not enough to help her cope with her school's demands. The sample of this study is not big enough to make generalization. There are many symptoms by which a person can be identified as being dyslexic. With the help of professional therapists, qualified teachers and aware parents, dyslexics can overcome their reading and learning disabilities and be as successful as their peers.

After applying the Pareto Principle (the 80/20 rule) , the level of her obviously becomes much better but still not good. It helps her to concentrate more on the subjects and to focus on the most important materials within the one subject. Some recommendations to enhance successful interactive instructional activities are:

- The Teachers can often include explicit teaching steps within their lessons (demonstrate the text's skills , set up independent practice, corrective feedback)
- Use step by step instruction
- Combine verbal and visual information

- Write key points or words on the board
- Use balanced presentation and activities
- Use mnemonic instruction
- Emphasize daily review
- place students close to the teacher
- encourage use of assignment books or calendars
- use cues to denote important items
- allow use of instructional aids
- encourage note sharing
- use flexible work times
- provide additional practice

References:

- Aaron, P (1999) "Diagnosis and Treatment of Reading Disabilities Based on the Component Model of Reading", Journal of Learning Disabilities No .41, PP 67–84
- Guardiola, J (2001) The Evolution of Research on Dyslexia, Colorado, University of Colorado: unpublished PhD Thesis
- Lam, Catherine (2001) "Dyslexia and other Specific Learning Disabilities", Dyslexia and Learning Vol. 6, No.3, PP 1–7
- Lyon, G (2005) The NICHD Research Program in Reading Development, Reading Disorders and Reading Instruction. Available at http://www.nld.org/researc/key99_nichd.cfm.
- Starak, Yaro (<https://www.enterpreneurspareto-principle>)
- The International Dyslexia Association (IDA) (2001) Dyslexia Available at : <http://www.dyslexia.org>.
- (https://en.wikipedia.org/wiki/pareti_principle)
- (<https://www.dynaread.com/accommodating-students-with-dyslexia>)
- (www.amazon.co.uk)